Environmental values amongst tourists to small urban places in Scotland.

Thesis

UNRESTRICTED

ENVIRONMENTAL VALUES AMONGST TOURISTS TO SMALL URBAN PLACES IN SCOTLAND

Deborah Suzanne Estelle Crick - Furman BA (Hons)

Department of Applied Consumer Studies And Hospitality and Tourism Management

Queen Margaret University College, Edinburgh

A thesis submitted in partial fulfilment of the requirements of the Open University for the degree of Doctor of Philosophy.

March 1999

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

Abstract

This study discusses the effectiveness of methods for measuring personal values in tourism research and presents an exploration of different modelling techniques as more effective approaches. Drawing on research examining the measurement of environmental values and the contextual, multiple and conflicting nature of values, the use of a contextual and situational value measurement technique for assessing tourism values is suggested as an alternative to the more common generalist "personal values in everyday life" approach. A two dimensional model of tourism values is proposed which serves to integrate the literature and help to better understand tourism values. The two bi-polar dimensions are, firstly, emotion-dominant and cognition-dominant; and secondly, inner directed and outer directed.

In 1995 and 1996 surveys were conducted on visitors to two small urban locations in Scotland. The objectives of the two studies were as follows: First, to uncover the range of personal values that are invoked when tourists are choosing a destination to visit, and which therefore can be considered as current and relevant to the tourism life domain (context). The contextual approach was used to measure situational variables (activities, destination attributes, place attachment and environmental concern) in both towns. Tourists to these two towns were then segmented on the basis of their expressed values and behaviours. Second, hierarchical loglinear analysis was used to examine the effect of multiple, conflicting values on holiday behaviour. The study concludes by emphasising the importance of measuring values taking into account the general or specific situation that tourists find themselves in, guided by values covering

all aspects of the tourist life domain. Finally, the utility and effectiveness of the two analytical approaches are assessed and the managerial implications that emerge from the study and analysis are discussed.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Acknowledgements

I would like to express my immense gratitude to Professor Richard Prentice for his stellar performance as my Director of Studies for this work. Without his dedication, insight, and encouragement, this thesis would not have been completed.

I would also like to express my sincere and heartfelt thanks to my husband Phil for his technical expertise, support and advice, to Amanda and Mark Long of Land Sea Solutions for their unstinting encouragement and inspiration and to my parents, for their continued help and faith in my abilities.

CHAPTER 1

INTRODUCTION

A Background To Environmentalism

Environmentalism was borne of the view from the mid 1960's onwards that unchecked economic growth could be seen to have the potential to damage the natural environment in an irreversible way. Before the 1970's natural resources were often seen as plentiful and boundless, existing to be exploited as cheaply as possible to serve the needs of humankind (Mannion and Bowlby, 1994; Eckersley, 1994. McDowell, 1996). Natural resources were often used in abundant quantities commercially which took no account of their finite nature. For example, scant attention was given to the quantity of fish harvested, the amounts of minerals used or forests cleared as development was considered to go hand in hand with economic growth (Eckersley, 1994; Soussan, 1994; McDowell, 1996). For the early post war period until the early 1960's, the desire to push for change and economic development was unchallenged by many although there were some people who raised the issues about the consequences of resource exploitation and sought to bring them to the forefront of the publics' attention. In particular, works such as Carson's' *Silent Spring* (1962) and Schumacher's *Small is Beautiful* (1973) had some impact on public awareness and the increased concern for the environment led to the growth of the green movement in many developed countries and pressure for more effective legislation in these countries to control environmental impacts (Eckersley, 1994; McDowell, 1996).

An analysis of space devoted to environmental issues in The Times (GB) illustrated the growth of interest in environmental issues (Bramwell and Lane, 1993). From 1956-1963, steady coverage of such issues was demonstrated. But, from 1965-1973, space

devoted to environmental issues had increased by 300% over the previous period (Brookes, 1980). Similar patterns were noted internationally (Sandbach, 1980). In parallel to this increasing public interest in environmental issues was the formation of environmental pressure groups, essentially organisationally diverse and, with the exception of Greenpeace and Friends of the Earth, largely a localist phenomena (Bramwell and Lane, 1993). The objectives of these groups may be seen as being influenced by their degree of belief and commitment to the ideology of environmentalism.

Environmentalism is an ideology built on ecocentric (i.e. ecology centred) ideals which advocate that humans must live in harmony with nature and that there are limits to the capacity of the natural environment to absorb the growth of human activities. This perspective differs from traditional anthropocentric (i.e. human centred) thought about the environment which expresses the feeling that nature lacks inherent value and exists primarily to serve the needs of mankind (Dunlap and Van Liere, 1978; Geller and Lasley, 1985; Noe and Snow, 1990; Uysal et al, 1994; Eckersley, 1994), and can therefore be exploited to this end. Degrees of environmentalism can be seen as a continuum of paradigms of environmental viewpoints bounded by these polar extremes and definitions of environmental viewpoints can be considered as lying in a position that falls within a range somewhere inside these two polar extremes.

Those groups who believe that mankind should contribute to the improvement and sustainability of the environment (i.e. humans have a high level of responsibility (Orams, 1995)) may be characterised as taking an "active" stance resulting in positive

action. Those who accept a lower level of responsibility take a more "passive" approach, simply seeking to minimise their damage to the environment (Eckersley, 1994). However, there is a gap between the beliefs and values of many humans as "environmentalists" and their behaviour and actions as consumers of the "green" concept and products.

The emergence of "green consumerism" can be considered as the most dramatic development of environmentalism (Rudig, 1993). For most consumers, environmentalism to some degree is no longer a marginal activity confined to group membership. There is no question that many consumers are becoming "greener" or more environmentally sensitive, both in terms of awareness and in a desire to contribute through their efforts a more sensitive approach to numerous activities and purchasing behaviour (Wight, 1993). Plant and Plant (1991) in their examination of marketing activities has conceptualised the notion of degrees of environmentalism as "shades of green". Ranging from "light green" superficial beliefs to "dark green" active commitment.

Such changes have been supported by summary statistics; for example MORI (1996) reported from the results of a recent nation-wide survey that 61% of the population were "green consumers". In a similar consumer survey (NCC, 1996), 57% of adults in the UK claimed that they had bought environmentally friendly and organic products, and 56% claimed that they regularly recycled. Equally, the accuracy and the translation of such summary views into action need to be questioned. Firstly, there is a well-documented disparity between what people say they do in terms of environmentalism

and what action they actually take. The National Consumer Council in their 1996 report on environmental claims concluded that when people are asked about concern for the environment and environmental actions, the vast majority would give the "right" answer and say that they are concerned and act accordingly. This disparity presents a major problem segmenting consumers on the basis of reported environmental behaviours. Secondly, It has been argued that in our late modern or post-modern society (Van Raaij, 1993), consumers consume products for their symbolic meaning rather than for their material utility (Baudrillard, 1981). The ideology of environmentalism is laden with symbolic meanings the functions of which have operated outwards to construct a society in which concern and human responsibility for the environment is the norm, a socially acceptable form of behaviour. These symbolic meanings have also functioned inwards toward constructing self-identity of the consumer; the consumption of green products or expressed support for environmentalism displays a social awareness, the consumer as a responsible and concerned individual.

Until the late 1960's when the environmental movement began to make its' presence felt in Europe and the USA, there had been very little fundamental questioning of the economic system which was producing environmental impacts such as resource degradation and pollution. The complacency that existed with regard to the plentiful supply of natural resources was brought to the forefront of public attention in a major way by the first oil crisis in 1973. The coincidence of this crisis with a major environmental study; *Limits to Growth* (Meadows et al, 1972) which predicted a collapse of the world system within the next century if the unbridled pattern of

resource use was not arrested, created a general belief that a future of global resource scarcity resulting in higher prices was inevitable. This was the prevailing view for the 1970's and much of the 1980's and led to the central belief that natural resources were important economic and political concerns.

Over the last one and a half decades through greater knowledge of resource availability, it has transpired that this view was erroneous, whilst natural resources may be indeed finite they are not likely to be imminently exhausted. Over this period new concerns emerged which focused less on the future supply of resources and emphasised more the impact on the environment of using these resources. The resource concerns of the 1990's emphasise the quality of renewable resource flows rather than the amount of non-renewable resource stocks. This shift in emphasis is reflected in the approach that is referred to as *sustainable development.*

A Background to Sustainable Development

The concept of sustainable development emerged in the late 1980's as environmentalism's new paradigm, although origins of the concept can be traced back to Dasman et al, 1973 Ecological Principles for Economic Development. In essence, sustainable development seeks to reconcile environment and development and quality of life issues by taking into account human needs and the capacity of the environment to cope with the impacts of economic growth. The concept of sustainable development largely consists of broad goals which human institutions endeavour to turn into positive, achievable action. It has been argued that the concept of sustainable

development should be approached with caution as it is rapidly becoming "a new orthodoxy" and a bandwagon (Soussan, 1994), and in many cases rather than acting as a catalyst for change, it is used and abused to legitimise activities and policies that are often neither sustainable nor developmental (McKercher, 1993b).

The first use of the notion of sustainable development was in the World Conservation Strategy (International Union for the Conservation of Nature (IUCN), 1980) which focused mainly on sustainability in ecological terms, largely ignoring economic issues. The IUCN report (1980) called for three main priorities to be built into development policies: i) the maintenance of ecological processes; ii) the sustainable use of resources and iii) the maintenance of physical diversity. The ecological emphasis of the IUCN report was widely criticised for being anti-developmental, that is, as tending to view all development and human impact on the environment as negative. In view of this lack of emphasis on the relationship between the economy and the environment a further report that led to the re-formulation of the concept of sustainable development was initiated in 1987 by the World Commission on Environment and Development, more commonly known as the Brundtland Commission. *Our Common Future* (The Brundtland report (1987)) has not to date been superseded and has been seen as a benchmark for all future discussions of sustainable development. Sustainable development is defined by the Bruntland Report as "Development that meets the needs of the present without compromising the ability of future generations to meet their needs"(WCED, 1987).

Four basic principles crucial to the concept of sustainability have been outlined by the Bruntland Report, (1987: 1) The idea of holistic planning and strategy making; 2) The importance of preserving essential ecological processes; 3) The need to protect both human heritage and biodiversity; 4) To develop in such a way that productivity can be sustained over the long term for future generations (WCED, 1987).

Essentially, the Brundtland Report recognised the need for economic growth and recommends the formulation of policies that seek to maximise growth but in a manner that does not have a degrading or negative effect on quality of life or the future viability of the resource base.

Sustainable Development and Tourism - A Background

It is against this wider background of sustainability that the concept of sustainable tourism development has evolved. Just as general environmental growth has been questioned, so too has unbridled tourism growth. Modern tourism, which expanded in the 1940's post war period, continues to grow. The importance of the sector to the global economy is unquestionable, and it has been projected by the World Tourism Organisation that by the beginning of the millennium tourism could be the world largest single industry (Coccossis, 1996; WTO, 1989).

Although the term "sustainability" gained more common usage and acceptance with the Bruntland report (Archer, 1996), convergence on a universal definition of the term remains problematic, and a wide range of issues abound, interpreted according to the

priorities of different interest groups. (Grifone et al, 1991; Bottrill and Pearce, 1995). The "vague" meaning of sustainability in tourism is termed by Harrison (1996) as a "muddy pool" from which no common definition of the term emerges. This problem appears to be a persistent one, twenty separate definitions of the term sustainable development were listed by Pearce in his 1989 study (Pearce, 1989). Almost a decade later, Stabler and Goodall (1996) comment that the vagueness of the term is compounded by the range of definitions that abound, citing evidence of more than 300 definitions.

Recognition of the bold principles outlined in the Bruntland Report has resulted in a steady flow of policy statements and initiatives towards sustainability in tourism development from national, regional and local governments, tourism organisations, businesses and local communities (for example; English Tourist Board, 1991; Scottish Tourist Board, 1994; Wales Tourist Board, 1994). Although sustainability may be considered a fairly new concept in tourism and environmental polices, protecting the environment and monitoring tourist activity are issues of policy concern that have long been recognised (Coccossis, 1996). More recently, views on environmental policy have been expanded to take a broader perspective on tourism and the environment in the context of a search for strategies for sustainable tourism development. The early focus on environmental issues in sustainable tourism has broadened to include social and cultural issues as well as questions of power in society (Crick, 1989; Hall, 1991), which, it has been argued are often treated in a "tokenistic way" in favour of and economic considerations (Craik, 1995).

Despite the widespread recognition of the need for sustainable tourism strategies, it is evident within these policies that there is a wide variety of interpretation and perspective (Coccossis, 1996). It has been argued that the different interpretations of sustainability used by industry and conservationist movements represents a major threat to tourism, as they are used to justify their existing activities and policies rather than precipitating change and in doing so, aggravate rather than resolve conservation versus development conflicts (McKercher, 1993b). In common with McKercher (1993b), Ashton (1991) notes that the extent to which sustainable tourism represents a change to practices and initiatives or simply a relabelling of an old one is debatable.

Whilst the broad concepts of the Bruntland Report, discussed earlier, are probably acceptable to all, major problems arise in defining methods of implementation and in reconciling all of the interests involved (Archer, 1996). The difficulty of arriving at a universally accepted definition of the term "sustainable development" in tourism means that it can be interpreted and moulded to fit the different viewpoints of different interest groups, according to their stance taken on the wider debate between resource conservation and economic development (Munt, 1992; Hunter,1995a). The different viewpoints that may exist between tourism developers and conservationists for example can be demonstrated in the context of the polar viewpoints on the relationship between economic development and resource conservation (Turner, 1991; Eckersley, 1994; Hunter , 1995a). For example, Miller and Kaae (1993) in their study of marine and coastal tourism presented the diverse number of definitions and connotations associated with the term "ecotourism" as a continuum, at one extreme, "all tourism as ecotourism" such a philosophy takes the view that all humans are living organisms with

no responsibility to consider other living organisms and whose behaviour is natural. It follows therefore that people are literally unable to behave unnaturally and "unecologically", no distinction can be made between the natural environment and the manmade environment - all development is therefore sustainable (Miller and Kaae, 1993). At the other extreme "ecotourism as impossible" a polar philosophy that argues that all development will have a negative effect thus no development can be seen as sustainable. Orams (1995) further developed the work of these authors by classifying definitions of ecotourism according to their tendency to be consistent with high or low levels of human responsibility. Arguably, it is between these polar extremes that the most fruitful interpretation of sustainable tourism development lies, the view that change and technical progress can be used to forge a relationship between the desire for economic growth and the need to conserve the environment (Hunter, 1995b; Orams, 1995).

In addition to the different viewpoints that may exist between tourism developers and conservationists, the meaning of sustainable tourism to tourists themselves as participants is also subject to interpretation. This interpretation is likely to change if, as hypothesised in the present study, the values ascribed to places do not necessarily remain constant, but may be adapted to different environments according to the immediate goals and objectives of the individual.

Bottrill and Pearce (1995) discuss the difficulty in operationalising the concept of sustainable tourism or "ecotourism" because of the diverging interests of the three main groups involved, participants (tourists), operators and resource managers. These

authors suggest an approach to operationalising "ecotourism" by classifying a set of measurable key elements covering participant, operator and resource management perspectives. However, a major limitation of the study, as recognised by the authors was that from a participant perspective, no visitor study was undertaken. Instead, aspects of the visitors' perspectives were inferred from promotional literature, thereby ignoring the well-documented complexities of visitor or consumer behaviour. As will be argued in the present study, examination of visitors' values is particularly important in any study of the consumption of sustainable or ecotourism products. Firstly, environmental or "ecotourists" can not necessarily be assumed to be a distinct homogeneous subset of tourists with similar stable values, needs and behaviours. Secondly, the marked disparity between what people say they do in terms of environmentalism and what action they actually take presents a major problem segmenting consumers on the basis of reported environmental behaviours.

This disparity has been well documented in the context of sustainable tourism. It has been postulated (Wheeller, 1991) that the marriage of the symbols associated with environmentalism and travel, which has always been regarded as a symbol of elitism and sophistication has spawned a new breed of tourist who displays an ostentatious concern for the environment - *"egotourists"* (Wheeller, 1991). The exploitation of the term "eco" with regard to tourism has been discussed by Wight (1993) who notes that there is no doubt that "green sells", though the notion of "limousine environmentalism, where lip service masks the lack of positive action" (Waldstein, 1991) is prevalent. Wheeller (1994) suggested that the growing popularity and expressed support for environmentalism or green awareness is based less on philanthropic concern for the environment and more on immediate vested interest, "it is a little like giving to charity:

it makes us feel better. We rarely sacrifice so much as to cause any adverse effects to ourselves. The utility derived (by us) far outweighs the cost of the sacrifice". Equally then, consumers as rational economic beings are unwilling to sacrifice their standard of living for environmental improvements: a finding well documented particularly in the academic literature pertaining to community attitudes to economic development (For examples see: Sheldon and Var, 1984: Witter, 1985; Ap, 1992: Uysal et al, 1994: Burningham and O'Brien, 1994), and the consumption of natural food products (Homer and Kahle, 1988).

Most Western Europeans then will, in principle, be tolerant of the notion of environmentalism; at least in so far as it does not detract from their consumption of material goods. But, as Butler (1990) points out, whilst most people would probably accept the wisdom of the concept of sustainable forms of tourism in reality, the timescales of tourists are short: "It is not realistic to expect a tourist wishing to lie on a beach in the Caribbean to be too interested in the impact that they may have on the social fabric of the island..."(Butler, 1990). It has been suggested in more recent tourism research that it is the symbolic or emotional attachment that tourists feel towards a place or a class of places, for example wilderness areas, that will influence their concern for the use of that environment and their impact upon it (Williams et al, 1992; Prentice, 1992; Prentice et al, 1994). In Butler's (1990) example, tourism to a distant destination which would unlikely be visited on a regular basis, may result in a weak level of attachment and so, a lack of concern for its use. As a class of places, i.e. island beach resorts, they may be subject to a high degree of substitutability or interchangeability, dependent on what it is that tourists value them for. In contrast to

transience, endearment to place through repeat visiting (Prentice et al, 1994) may lead to concern for that place (Prentice, 1997a).

Mckercher (1993a) has argued that a number of "fundamental truths" about tourism exists which clearly illustrates the diverging interests of the different groups involved in tourism. These "truths" are outlined as: i) As an industrial activity, tourism consumes resources, creates waste and has specific infrastructure needs. ii) As a consumer of resources, it has the ability to over consume resources. iii) Tourism, as a resource dependent industry must compete for scarce resources to ensure its survival. iv) Tourism is a private sector dominated industry, with investment decisions being based predominantly on profit maximisation. v) Tourism is a multi-faceted industry, and as such, it is almost impossible to control. vi) Tourists are consumers, not anthropologists. vii) Tourism is entertainment. viii) Unlike other industrial activities, tourism generates income by importing clients rather than exporting its product.

For progress to be made in sustainable tourism development it is clear that a common interpretation of the term is necessary. The co-operation of all the interests involved is needed if a workable definition of sustainable development in tourism is to be reached. As pointed out by Hunter (1995b), sustainable development in tourism needs to become less parochial in its approach, as demonstrated by McKerchers' (1993a) "truths", it is not just a matter for the public domain, other agents should be concerned with sharing the responsibility for sustainability. Although each of these may have their own goals and priorities regarding the extent and way in which the environment should be protected from the impacts of tourism, a flexible co-operative approach

between public and private domains, non governmental organisations and local, national and regional authorities is seen as the key challenge in contemporary sustainable tourism development (Coccossis, 1996).

Impacts of Tourism and Sustainable Tourism Development

The impact of tourism on the social, cultural and physical environments in which it operates are well documented. Two views have emerged: firstly, that tourism is inherently irresponsible. Secondly, that tourism is sustainable if responsibly managed. Concerning the first view, Dowling (1992) noted that most forms of tourism had been seen as in conflict with the notion of responsible development. This is a view that has endured into many more recent tourism studies and forms what might be termed as the "traditional" view of tourism impacts. On a localised level, academic studies examining the adverse environmental impacts of tourism in numerous international settings abound, for example, Wang and Miko's (1997) study of environmental impacts of tourism on US national parks, environmental degradation in the Black Sea coast (Lukashina et al 1996) and the social and cultural impacts of tourism in Samos, Greece (Haralambopoulos and Pizam 1996). The ultimate logic of the "traditional" view is that negative outcomes can not be offset against positive gains from tourism.

The second, alternative, view is found in three bodies of research. Firstly, policy and planning related issues which focus on guidelines for handling potential and existing conflicts and impacts on a general level (Tooman 1997; Forsyth 1995). These studies generally call for the need for industry and local authority control (for a review of

public policy measures see Hjalager, 1996), and more prescriptive operational measures which apply policy to a specific area or problem (such as Todd and William's 1996 proposed environmental management system framework for ski areas). The second body of research is made up of studies addressing the impact of tourism on host communities, for example Poirier's (1995) study of tourism development in Tunisia or Prentice's (1993a) in the North Pennines of England. Generally, conclusions are that whilst tourism may offer economic benefits to a community, its impacts on the social and physical fabric of the community are often perceived to be adverse by residents. Such conclusions imply an opportunity for informed trade-offs in policy. Thirdly, there are increasing numbers of studies concerned with the opportunities for product innovation, exploiting synergies between tourism, the environment and the local economy, in the responsible management of the impacts of tourism. These studies in effect challenge the more traditional view of the inherent irresponsibility of tourism. Examples include Cooper and Odzil's (1992) study of the shift from mass to "responsible" tourism in Turkey, Barke and Newton's (1995) study of sustainable tourism in Malaga, Hobson and Mak's (1995) study of home based and community-based tourism in Hong Kong, rural products in Wales and Ireland (Meldon 1997; Hutson and Keddie 1997), and "ecological" products avoiding resource degradation (Commonwealth Dept. of Tourism, 1994; Prentice, 1997b). Indeed, the management of whole landscapes is now increasingly publicly funded in parts of Europe as tourist aesthetics and relic heritages (e.g. Prentice, 1993b).

This less traditional view in particular argues for the need for tourism management to balance conservation and preservation with use. As well as an insight into the

uniqueness of the resource, the conflict between preservation and utilisation requires a clear understanding of tourists' and others' values and preferences and the incorporation of these into decision making (Jackson and Dhanani, 1984). As Jackson (1987) noted, " one of the most urgent issues in resource management is the problem of finding an acceptable compromise between the development of land for recreation, and its preservation for ecological, scientific, cultural, historical and aesthetic reasons". This has led to a number of studies examining the relationship between environmental attitudes, preferences and behaviour of tourists in tourism destinations.

Tourists' Valuations Of The Environment

These studies have primarily utilised an environmental value scale, the New Environmental Paradigm (NEP) scale (Dunlap and Van Liere, 1978) to examine environmental attitudes. The NEP is a twelve item, five point Likert formatted, attitudinal series of questions that tested whether an anthropocentric or ecocentric dominated orientation channelled the views of the respondents. An ecocentric orientation advocates that humans must live in harmony with nature and that there are limits to the capacity of the natural environment to absorb the growth of human activities. This perspective contrasts with anthropocentric thought about the environment, which expresses the feeling that nature lacks inherent value and exists primarily to serve the needs of mankind.

Jurowski et al (1995) used the NEP to examine the relationship between environmental attitudes and support for environmental policy and preferences for recreational

facilities in a national park. Two distinct clusters representing an ecocentric group and an anthropocentric group were identified with diverging preferences for recreational facilities and management actions consistent with the environmental attitude groupings; the ecocentric group supporting protection and regulation, and the anthropocentric group supporting recreation development that would transform the environment. Similar findings were reported for an earlier study using the NEP to identify environmental attitudes by trip and visitor characteristics in US Virgin Island National Park (Uysal et al, 1994). The NEP scale has also been used in a recent study investigating the psychographics of nature- based tourists (Silverberg et al, 1996) which attempted to differentiate segments of the nature based travel market by lifestyle characteristics and then to develop typologies on the basis of differences in environmental attitudes, trip behaviour and demographics.

Other research has linked recreational behaviour to attitudes towards the environment. For example, Jackson (1986,1987) found that people who preferred "appreciative" outdoor recreation activities (cross country skiing, hiking and canoeing) held significantly more pro-environmental attitudes than those who prefer "consumptive" (fishing and hunting) and "mechanised" (snowmobiling and trailbiking) activities. A major limitation of the NEP is its applicability to European consumers (Williams and McCrorie, 1990). Not all the items included in the survey are as appropriate in a European context as in an American one. Many of the items are bifurcated, and may invoke different attitudes among Europeans, for example the item "plants and animals exist primarily to be used by humans". In Southern European countries the wearing of animal skins is far more readily accepted than it is in the USA. Further, vegetarian

respondents may well agree that plants exist to be used primarily by humans but would certainly not agree with the same statement concerning animals. For a full list of NEP items see Dunlap and Van Liere, 1978 and Van Liere and Dunlap, 1980). Further, these studies showed only weak correlation between environmental attitudes and activity type, preferences or trip behaviour.

Using Values In Tourism Research

In addition to the research using environmental attitudes to predict preferences and behaviour there are a number of tourism studies measuring personal values. The latter are considered to guide actions, attitudes and judgements and may be seen therefore as the determinants of attitudes as well as behaviour. Values have been considered to be more stable over time than attitudes as they have been considered to be more central to an individual's cognitive system than attitudes.

For the past three decades the role of values and value systems has received a great deal of academic attention yet, so far, the search for a satisfactory methodology for measuring values has met with little success. Past research has foundered on the fact that values are not an observable dimension of social reality but a researcher's construct. Despite this problem, there has been a recent restoration in the interest in measuring values in consumer behaviour (for examples see: Shrum, 1990; Sheth, 1995; Vallerand, 1997; Gnoth, 1997; Blamey and Braithwaite, 1997). This restoration is summarised by Sheth; "All the hurdles involved in capturing and dissecting values have not dampened public interest in them. Academic institutions are increasingly in search

of effective methods of education in values. Universities are willing more than ever to mount teaching and research programmes in business ethics and values. New efforts are made to disseminate knowledge on values through books and journals. The issue of values does not warrant indifference" (p.5, Sheth 1995).

Past research has linked personal values to consumers' motivations and behaviour in a number of different purchasing situations. These include gift giving (Beatty et al, 1991), natural food shopping (Homer and Kahle, 1988), choice of leisure activities (Beatty et al, 1985; Boote, 1981; Jackson, 1986) and vacation decisions (Muller, 1991; Dalen, 1989; Pitts and Woodside, 1986; Shih, 1986). Personal values have also been shown to influence the formation of attitudes towards brands, companies and marketplace alternatives (Perkins and Reynolds, 1988; Reynolds and Gutman, 1988).

Literature pertaining to the measurement of personal values has commonly conceptualised consistent factors, which can be used to define personal values. Values have been seen to represent concepts or beliefs, about desirable end states or behaviours that transcend specific situations, guide selection of evaluation of behaviour and events and are ordered by relative importance. Rokeach (1973) argued that attitudes focused on specific objects and situations, whereas values represented abstract ideals (positive or negative), untied to any specific object or situation. From this perspective an attitude is the result of the application of a value to a specific object or situation. Values have been seen to be more stable over time than attitudes as they have been considered to be more central to an individual's cognitive system than attitudes (Rokeach, 1973; Rokeach and Ball-Rokeach, 1989). Because of this

centrality and stability, values have been not only seen to be better predictors of an individual's behaviour over time, but also to serve as the determinants of attitudes and behaviour. Given this importance accredited to personal values, past research has suggested that they may serve as an effective basis for market segmentation due to their indirect impact on preferences for products and brands (Muller, 1991). In such a view, consumers seek out, identify with and consume products and services that can deliver attributes and outcomes related to specific personal values (Perkins and Reynolds, 1988; Reynolds and Gutman, 1988).

However, few studies have examined the role of personal values in tourist segmentation. Pitts and Woodside (1986) found that tourists could be segmented by travel / leisure choice criteria and that group membership and visits to tourist attractions could be predicted by differences in personal values. Muller (1991) segmented North American tourists on the basis of their perceived importance ratings of destination attributes and found that each segment possessed a unique personal value profile. Both of these studies concluded that values could be used by tourism marketers to guide product development and advertising strategies. These studies, however, used single personal values to predict behaviour, despite Rokeach's (1973) argument that multiple values affected behaviour.

Schwartz and Bilsky (1987) argued that single personal values are grouped in a value system, where values are ordered according to importance. An individual's value system may be conceptualised as serving to maintain self-esteem and consistent behaviour in a situation where one or more values are activated and come into conflict.

Conflict is resolved on the basis of how each value is prioritised relative to the other in the value system; trade-offs between values, therefore, commonly have to be made. Single values are grouped in this system based on their similarities and differences into value domains; for example, the values of fun and excitement reflect a hedonic domain, accomplishment and self fulfilment reflect an achievement domain (Schwartz and Bilsky, 1987; Madrigal and Kahle, 1994). These value domains are then grouped using the same criteria to form value system segments. Value domains are also seen to reflect an internal or external locus of control. An internal locus of control is reflected by values such as self-respect, self-fulfilment and sense of accomplishment. An external locus of control includes such values as security, sense of belonging and being well-respected (Homer and Kahle, 1988; Kahle, 1983; Gnoth, 1997).

Past research on multiple values and their effect on behaviour related to different products and media has noted that value systems as predictors of attitudes and behaviours provide a more effective and reliable measure than single values (Schwartz and Bilsky, 1987; Kamakura and Novak, 1992). Following the recommendations of this past research, Madrigal and Kahle (1994) used value system segments to predict vacation activity preferences among tourists to Scandinavia. Four mutually exclusive value system segments were identified. These segments reflected an enjoyment / excitement or hedonic domain, an achievement domain, an egocentric domain, and a segment which did not favour any of the value domains. These segments were found to differ on activity preference.

Although this past research has recognised that values are *multiple, interactive* and *conflicting*, how they interact when conflicting values are activated, and how these conflicts may affect behaviour, has not been systematically explored in tourism applications.

Measuring Values And Value Systems

The most common approach to the measurement of values in the research discussed are the use of value surveys after Rokeach's work of two and a half decades ago (1973). The Rokeach Value Survey (RVS) consisted of eighteen instrumental values and eighteen terminal values which respondents were asked to rank in order of importance as guiding principles in their everyday lives. A more simple, shorter survey, the List of Values (LOV), was developed (Kahle, 1983) from this instrument to address some of the limitations associated with the difficulty of ranking such a large number of items. The LOV Scale consisted of nine items taken from Rokeach's (1973) list of terminal values: a sense of belonging, excitement, fun and enjoyment in life, self fulfilment, being well respected, warm relationships with others, security, accomplishment and self respect. Terminal values were chosen for this instrument as they are considered to operate at a greater level of abstraction than instrumental values and seem to be more relevant to consumer behaviour (Madrigal and Kahle, 1994).

These approaches are problematic in the study of personal values in two ways. Firstly, this approach constructs values as relatively enduring, guiding principles in everyday life. However, some research has suggested that the underlying structure of past value

survey instruments may be contextual and may vary from one situation to the next (Kahle, Beatty and Homer, 1986) as trade-offs are made in specific contexts. The values presented in the RVS and LOV survey instruments are abstract values; that is, they do not relate to the context or life domain of individuals. Research addressed to the use of value surveys in consumer behaviour and segmentation (Shrum et al, 1990) indicates that true values are not easy to capture, as the effectiveness of procedures such as the LOV and RVS may be highly dependent upon the extent to which an individual engages in self reflection. Individual differences in the ability to accurately assess personal values therefore likely exists. Some individuals may be better able to report their abstract values than others, depending on the extent to which they have considered their values in the past. Shrum et al (1990) suggest that when confronted with a value survey instrument some individuals who have difficulty accessing their inner feeling may default to the easier task of inferring beliefs about their values from recent behaviour. In consequence, it is not necessarily enduring, stable beliefs that are being measured, but more closely approximate attitude judgements which are affected by a number of situational demands. As such, stated "values" will be situationally specific and the importance ascribed to any particular value, contextual. The notion that the importance of context and situation in the successful and complete measurement of values is paramount will be further elaborated in the following discussion. However, the implication of this is that a typology based on values measured in a particular context or situation should not be applied uncritically to categorise individuals in other temporal and spatial contexts.

More recent research seeks to address some of the problems discussed previously. Gnoth (1997) presented a model of tourist motivation and expectation in which he discussed the formation of values and their role in motivation. Gnoth's model represents a summary of the motivation and expectation process in which initially needs arise, which establish themselves as urges. Urges are emotional in nature and work to organise an individual's thoughts and actions stimulating a specific tendency to action. This tendency to action has now become a motive and causes the individual to search the localised environment for objects that satisfy this motive. It is at this point Gnoth (1997) suggests that the motivation process involves situational parameters and the construct of values comes into play - personal values are defined here using Kahle's (1983) definition of adaptation strategies, to adapt situations to meet ones own needs or to adapt oneself to a situation. An individual's values help to assess the potential of objects, situations and events that will satisfy their values. It is when abstract motives are linked to actual situations that involve cultural and social impacts that the interaction between an individual and the situation is expressed in values.

Following Kahle (1983), Gnoth advances the distinction between internal and external locus of control. He considers values to be either cognition-dominant or emotion-dominant. Cognition-dominant values are defined as outer directed or object directed. The "pull" factors of cognition-dominant values are based on knowledge about a goal, experience, or object (situation). They have an external locus of control. It is a specific object (situation) which is needed to satisfy these objects are usually of a tangible nature and are therefore difficult to replace or substitute, as the value is inherent in a

specific object. Emotion-dominant values are inner directed. They have an internal locus of control. The "push" of inner directed values is drive based - drive being the "energiser for behaviour" to satisfy needs. In contrast to outer directed values; specific objects are not needed to satisfy inner directed values but rather a class of objects (situations) or a process. Objects that are targeted for their promise to satisfy inner directed values such as destinations, services or experiences are more substitutable as it is not a specific object but an outcome that is sought.

Vallerand (1997) similarly emphasises the importance of the internal / external dichotomy. Vallerand presents a hierarchical model of intrinsic and extrinsic motivation. Intrinsic motivation is defined as engaging in an activity out of pleasure and satisfaction; and extrinsic defined as engaging in an activity in order to obtain something outside the activity, similar to Gnoth's (1997) inner and outer directed values. Vallerand's model suggests that motivation occurs on three levels; global, contextual and situational. Parallel to Gnoth, he suggests that it is at the contextual and situational level that measures are more sensitive to influences specific to that context or situation and that an individual's motivational orientation may change drastically from one context to another. From this perspective, in order to understand the motivation of individuals within their social niche, it is important to focus on the very social contexts that are important to them. Both studies conclude by emphasising the importance of measuring values, motives or motivations taking into account the general or specific situation that tourists find themselves in, guided by values covering all aspects of the tourist life domain (context).

Environmental Values

Recent research into the role of specifically environmental values has also highlighted the importance of context when attempting to measure values suggesting that different dimensions of the environment are prioritised and valued in different ways within different contexts of action (Burningham and O'Brien, 1994). From this perspective, environmental values cannot be considered enduring stable beliefs, as the "environment" is not a routine matter of concern for most people. For many people, unlike home, place of work and so on, the environment has no fixed dimensions that fit into the "normal" daily routine of life. Burningham and O'Brien argue that the environment only becomes a matter of concern when it is needed. When this happens, characteristics of the environment are invoked in order to achieve particular ends. They suggest that how people depict an environment, what they value within it and how they value it will vary according to the immediate aims and objectives persisting within a particular context Burningham and O'Brien further suggest that "global" beliefs or values are decontextualised, abstract statements which are localised in specific contexts of action, and should be regarded as a resource which individuals employ to justify their conduct rather than as some sort of enduring moral entity.

This conclusion supports earlier research on environmental values by Aitken and Bjorklund (1988) which suggests that person / environment relations do not exhibit stability; instead, values ascribed to an environment are transactional and transformational. These authors also endorse the point made previously in this discussion: that the danger of consumer typologies and methodologies which seek to elicit stable cognitive representations for understanding the environment, noting that

such methodologies tend to produce "comparative statics" which cannot be replicated in other contexts or situations due to the instability of environmental values.

Following this line of reasoning, if the environment is not considered as being part of daily life, and so divorced at least in part from "global" values, then it could be argued that holiday decision making and tourism are subject to similar considerations as they are not part of everyday life either. The environment becomes an issue for people when it is perceived to possess utility; that is, when it is perceived to possess a value for something. The value ascribed will depend upon the goals and purposes of an individual in a specific context or situation. Similarly in a tourism context the destination (environment) is not a part of daily life or a routine matter of concern; it becomes a matter of concern for its utility as a holiday destination. Levels of knowledge will also likely vary between what is familiar and what is unfamiliar, compounding contextuality and situationality with uncertainty. Different values will be ascribed to the same destination (environment) according to the goals and purposes of the individual. The ascription of these values will affect what is valued in a particular destination, how it is valued and why it is valued. If holiday decision making and tourist behaviour can be considered as divorced from daily routine life and as such, not subject to "global" values (as "guiding principles in everyday life"), it could be hypothesised that a different set of values exist when an individual takes a holiday, especially if this is seen as an escape from routine and daily life. Tourism values will be multiple and conflicting; these values will be assigned depending upon their assessment of the immediate interactional context and their goals within it.

If however, tourism is seen as a continuum of lifestyle, which spans holidaying, weekend recreation and everyday leisure activities, global values may have greater pertinence in the tourism context. In the present study, the continuity implicit in the latter argument has not been assumed. Situationality in the disparate context of urbanised daily life in cities compared to holidaying in smaller urban places and their rural environments further limits the potential utility of assuming continuity.

The previous discussion emphasises two important issues. Firstly, that contextual and situational parameters must be taken into account when exploring values. This is important as it is these influences that are operationalised as values expressing learned strategies to satisfy needs by either adapting the environment to suit ones needs, or in the adaptation of oneself to a particular situation. Specific situations will likely guide how an individual adapts. It is the combination of motives, values and situation that explains the diversity and differences in behaviour. Secondly, the categorisation of values on the basis of their inner or outer direction, emotional or cognitive content or locus of control permits the examination of what aspects in tourism are more substitutable. The targeted outcome of inner directed emotional values is to reduce drive. The reduction of drive leads to recall of the behaviour that led to satisfaction and the likelihood that a habit will be formed and the behaviour repeated. The emotional content of tourists' values are particularly important as holidaymaking is a pleasure seeking, hedonic activity and thus particularly prone to emotional influences. The satisfaction of outer directed cognition values confirms and strengthens the belief component of attitudes (Gnoth, 1997).

CHAPTER 2

METHODOLOGY

Aims of the study

The present study seeks to draw on the developments in consumer behaviour and marketing which argue for new approaches to the measurement of personal values. In particular, these developments argue that values should not be considered as relatively enduring, guiding principles in everyday life, rather as contextual constructs which may vary from one situation to the next (Shrum et al, 1990; Gnoth, 1997; Vallerand, 1997) and that the emotion and cognition content and direction of these values will affect behaviour.

In contrast, past value research has used abstract value measures neglecting the importance of context and situation as highlighted in Chapter 1. As suggested by Shrum et al (1990), by neglecting the contextual and situational nature of values it is not necessarily enduring stable beliefs that are being measured, but more closely approximate attitude judgements which are affected by a number of situational demands. As such, stated "values" will be situationally-specific and the importance ascribed to any particular value, contextual. Past value research has also largely ignored the emotion and cognition content of personal values and their effect on behaviour.

The present study is an exploratory one, which seeks to assess the utility and effectiveness of different modelling techniques in the measurement of personal values. This study approaches the measurement of tourists' values using a contextual value measurement technique as an alternative to the more common generalist "personal

values in everyday life" approach. These tourism values are summarised in a proposed two dimensional model which facilitates the analysis of tourism values according to their inner or outer direction and emotional or cognition content.

The study sought to interview domestic tourists to Scotland. These were defined as residents of the British Isles, other than residents of Scotland, spending at least one night away from home and visiting specific Scottish towns used for the study. Scottish tourists were excluded from the study because the personal context of Scottish visitors would be potentially local. It was the aim of the study to measure tourism values away from the home environment as it was hypothesised that these would be a distinct set of values.

Overseas tourists were also excluded from the study because it could not be assumed that the range of international visitors to Scotland would have the same motivations to visit Scotland as domestic tourists. In addition, given the variation in substantive issues involved in environmentalism i.e. that consumers cognition of the importance of any particular issue pertaining to the environment such as pollution, resources, wildlife, population and wilderness may be contextual, it was assumed that it was more likely that domestic tourists would have potentially comparable knowledge of environmental issues.

Tourists from the British Isles outwith Scotland were therefore chosen following the assumption that these tourists would have potentially similar motivations to visit and cognition of environmental issues in the UK. Domestic day trippers were also excluded

because it was anticipated that these visitors would have different motivations for their visit and potentially value the environment differently in comparison to tourists who were spending more than one night away from home.

Past tourism research (for example: Wight, 1996a,b ; Ryel and Grasse, 1991; Kretchman and Eagles, 1990) has argued that ecotourists are distinct from "other" tourists in the personal values that they hold, their value for the environment, their motivations for visiting a particular destination and their preferred holiday activities. In particular, the present study examines the extent of the differences between the tourism values and behaviours of these two groups of tourists. The present study seeks to assess how tourists to Scotland depict their environment, what they value within it and how they value it. It also seeks to examine the effect of personal values on the immediate aims and objectives of tourists persisting within a particular context.

It has been further argued that the level of attachment that an individual feels for a particular setting will affect their concern for that environment and how they use it (Williams et al, 1992). Elsewhere in the tourism literature it has been pointed out that, whilst most people are accepting and in agreement with the concept of sustainable tourism, in reality it cannot be expected that tourists visiting an area for a short period of time will be too interested in their impact on the place (Butler, 1990). The present study aims to evaluate the effect of attachment to place or to a class of places on the way in which tourists value their holiday environment and their holiday making behaviour.

The impact of personal values on behaviour can be looked at individually, using a bivariate analysis approach and examining the effect of one value at a time. This approach has been criticised in past studies as ignoring the multiple nature of personal values (Kahle, 1983; Homer and Kahle, 1988; Schwartz and Bilsky 1987). Personal values can also be examined simultaneously, the conventional technique for this is by clustering to derive a multivariate market segmentation. This has been the traditional approach to the measurement of multiple personal values in past tourism research (see for example; Madrigal and Kahle, 1994; Muller, 1991). The defect of such approaches, is that although like individuals are grouped together in a segmentation, not all of the individuals in a segment are the same in their profile of values. If values are simultaneously multiple, interactive (compounding or conflicting) and context specific, examination of the extent to which they compound or conflict is needed if we are to fully understand their effect on behaviour.

In order to take a more systematic approach to the examination of the relationship between variables an alternative multivariate technique is suggested to segmentation approaches. Loglinear analysis is considered to be the most appropriate non parametric approach to analysis in these circumstances as it allows elaboration of bivariate relationships and examines the relationship between variables at all levels to be examined. The present study compares and appraises these two approaches, bivariate and multivariate, to the measurement of personal values in tourism research.

Research Design

In order to identify and measure the substantive dimensions of environmentalism pertaining to tourists' values and their holiday making behaviour, two stages of data collection were undertaken. Firstly, semi-structured exploratory interviews were conducted to gain insight into, explore and capture, the key contextual issues and values held by tourists visiting the study towns. To this end, 40 semi-structured interviews were undertaken with domestic tourists at St. Andrews and, 40 interviews were conducted at Pitlochry. Forty interviews were also conducted with domestic tourists at Stirling. However, similar small urban places were explicitly sought for the sample for the present study. On this basis, Stirling was eliminated from the study after this first stage of data collection as it was found that the media attention which had been focused on this part of Scotland through the film *Braveheart* was determining the motivations and experiences reported of tourists, many having seen the film and now seeking to explore its associations for themselves. It was felt that these responses would not be generalisable to tourists in other areas of Scotland and that it would not be possible to generate a sample which was situationally similar between the three towns.

The matter of situationality and contextuality is critical here and should be clarified. Situationality is conceptualised as the differences between specific places. For the purposes of the present study, to make modelling manageable, it refers to the difference between types of places. Contextuality is conceptualised as a distinct sphere of human activity, different roles in different life domains. That may be the difference

between tourism and employment for example, or it may be the difference between types of tourism. In the present study, only one type of tourism was investigated, namely landscape tourism in which aesthetics and settings for activities are known to be important (Prentice, 1997a). Additionally, the extent of situationality pertains, while there might not be a large extent of differences in tourists' values and behaviours between St. Andrews and Pitlochry, differences may be expected between tourists visiting Pitlochry and those for example visiting the major Scottish cities of Glasgow and Edinburgh.

Once the key dimensions of environmental values, issues and behaviours had been identified and defined for the second stage of the research, these were used as bases for measures across a larger sample of tourists. In this second stage, quotas of 300 domestic tourists were interviewed in St. Andrews and likewise 300 domestic tourists were interviewed in Pitlochry. In this way, the insights gained from qualitative methods are combined with the generality which quantitative methods provide. The complementary nature of qualitative and quantitative research has been well documented elsewhere (see for example: Veal, 1992: Brannen, 1992; Cooper and Tower, 1992) and in tourism research (see for example: Walle, 1997; Prentice, 1993c; Otto and Ritchie, 1996). With particular relevance to the present study, the importance of qualitative research to distinguish between the wide range of issues subsumed in much of the research in the field of environmentalism has been emphasised (Van Liere and Dunlap, 1980; Burningham and O'Brien, 1994). However, previous research examining personal values has not generally used this two stage methodology, favouring lists of abstract values which, due to the situationality and contextuality of

tourists' values as highlighted in Chapter 1, has been a limitation in the progress of value measurement studies.

Aims Of The Qualitative Research

The overall aim of the initial exploratory work was to record, using tourists' own descriptions and in their own words, the dimensions of environmentalism and values which were pertinent to tourists in the current context, that is, landscape tourism and the current situation i.e. Scotland, Pitlochry and St. Andrews.

The main aim of the exploratory work was achieved using a fifteen to twenty minute semi-structured interview schedule utilising a "laddering" technique often used in marketing to uncover the meanings or values of a product to an individual.

Qualitative methodologies such as the exploratory interviews carried out in the first stage of this study have a particular advantage over purely quantitative approaches in that they enable the "capture" of first- person descriptions of how and why the current environment is valued and used. In this way, individual values, perceptions and emotions can be defined by allowing the individual to fully express him or herself in their own words, in a way that using quantifiable predetermined responses would not have permitted.

In addition, previous research in the field of environmental concern and use studies have noted the confusion which often arises in the use of specialist environmental

terminology and jargon (Van Liere and Dunlap, 1980; Homer and Kahle, 1988; Madrigal and Kahle, 1994; Burningham and O'Brien, 1994). This exploratory research was a useful means of minimising these problems in the second stage of the present study as it generated terminologies actually used by tourists and eliminated the problem of applying formal, scientific techniques to a context or situation which had not been previously explored or an "intellectual vacuum" (Walle, 1997).

The semi-structured schedule developed for the 1995 exploratory surveys was designed to explore and gain insight into the following five main areas. Firstly, tourist motivations which were measured as expressed reasons for visiting Scotland, and the two towns; and also what was most attractive about Scotland or the particular area they were visiting. The exploratory interviews also sought to examine the attributes of Scotland, and the areas that they were visiting that were most important to them when they were selecting their holiday destination. As the tourists were interviewed while already at the destination, motivations for visiting and most of the important attributes of the area were recorded after the tourists had experienced them. Therefore, it must be acknowledged that their replies may have been influenced by actual experience. The interviews also examined the type of attachment that tourists felt towards Scotland and the area visited including the degree of substitutability of the place; the range of activities that tourists engaged upon when on holiday in Scotland and these two areas specifically were also included. Finally, the interview schedule aimed to explore the level of concern expressed about the impact of tourism in the area as well as the type of tourism impacts that tourists were sensitive to (Appendix 1).

Using principles derived from the "laddering" procedure (Reynolds and Gutman 1988), respondents were questioned specifically as to the importance of their motivations, most important attributes and attractiveness of the area, their attachment to the place and their concerns for the area This type of procedure has been used in past leisure research to assess the value or meaning of visiting leisure attractions or partaking in recreational pursuits (Jansen-Verbeke and Van Reom, 1996: Klenosky et al, 1993). Laddering has been proposed essentially as a technique for connecting consumers' values to their behaviour by uncovering higher order linkages between specific attributes (e.g. characteristics of a destination), the consequences or benefits derived from those attributes and personal values. It is most commonly used as the method for eliciting the information for and understanding Means-End Chains (Gutman, 1982; Perkins and Reynolds, 1988). The use of laddering interview techniques as a precursor to value system measurement in tourism research has been advocated, although not empirically tested (Madrigal and Kahle, 1994).

Laddering involves an one to one interviewing technique which is used to develop an understanding of how consumers translate the attributes of products into meaningful associations with respect to self defining attitudes and values (Reynolds and Gutman, 1988). A series of probing questions are asked, typically that of *"why is that important to you?"*, which are focused on aspects of the product that respondents preferred. In this way, respondents are encouraged to give an answer specific to their own thoughts and feelings, and in their own words (Peelen, 1993). For example, once a respondent had been asked about their motivation for visiting Scotland or the attributes of the destination which were most important in choosing somewhere to visit

on holiday, he or she were then asked "why is that important to you?". His or her response was then used as focus of the next "why is that important to you?" question. The process continues, moving the ladder upwards until the respondent can no longer provide an answer, thereby potentially connecting relatively superficial product meanings to more abstract meanings of personal values.

The use of this technique permitted an understanding of tourists' underlying personal motivations by causing the respondent to think critically about the connections between, for example, the attributes of the destination and his or her personal motivations. The laddering process is a very probing technique and given the sometimes sensitive nature of the environmental questions asked it was necessary to try and establish a rapport with the respondents and to put them at their ease. For this reason, the environmental concern questions were asked later on in the interview. Questions relating to motivation to visit and most attractive aspects of the area were asked first to encourage respondents to start to reflect and think critically about the environment they were in and how they felt about it.

The "laddering" process generally worked well with the majority of respondents being able to articulate why a particular attribute or motivation was important to them. Some respondents however were initially unable to articulate a reason when asked why a motivation or attribute was important to them. This situation was dealt with by the interviewer rephrasing the question and asking what would happen if the attribute or motivation was not present. For example, a "don't know" response to the question of why a destination attribute, such as entertainment for children, was important to the

respondent, would be rephrased to ask what would happen if the holiday destination did not have facilities to entertain children? This technique is known as "negative" laddering (Reynolds and Gutman, 1988). The "non-conscious" reason is discovered by the respondent imagining the negative resulting from the absence of this attribute, and then relating that back to what is important if that negative is to be avoided. A danger of leading the respondent through suggestion via negative laddering has, however, to be acknowledged.

A pilot survey was carried out in June 1995. Only minor revisions were made to the interview schedule. Interviews were conducted by the author of the present study in both of the two towns. Generally, the interviewer followed a route around each town which bypassed all the main tourist attractions and places where tourists tended to congregate. In this way, respondents' were usually seated and tended to be more receptive and attentive to the interview process. Responses were recorded by hand. In general, the majority of tourists' welcomed the opportunity to take part in the interviews and responded positively to the interview situation, there were only 25 refusals to participate over the two survey towns.

The qualitative research can be thought of as enhancing the reliability and validity of the research as responses were recorded in the respondents own words. It has been suggested in past tourism research that examination of tourists experiences needs to be "grounded" in the realities that tourists themselves describe. In particular, environmental value research has called for an inductive approach to how a specific environment is valued in which the pertinence and importance of particular aspects of

the environment are not assumed as researchers' or environmentalists' constructs, but rather, are identified by the individuals using that environment (Burningham and O'Brien, 1994), "as part of the life worlds of individuals" (Prentice et al, 1998; Graham, 1995; Jacques, 1995; Silverman, 1993; Simmons, 1993).

The findings of the 1995 surveys were significant in terms of providing dimensions of the environment and tourist motivations and values which could be adapted as categories to be measured on a more representative sample in the next stage of data collection. From the descriptions of tourists' motivations, values, environmental awareness and concern recorded, a content analysis in the form of a count was made of the frequency of key dimensions, words or phrases, thereby providing an indicator of their strength and presence. This approach has been used in recent research analysing the values ascribed to different environments (Burningham and O'Brien, 1994), and in leisure research (Howe, 1991). The most frequent dimensions or phrases used to define dimensions of questions for the quantitative research, and some examples of actual tourist responses in their own words, are shown in Tables 1 to 4 on the following pages in this chapter.

Table 1 Dimensions Of Tourists Personal Values (As Expressed Reasons For Visit) Gained From The 1995 Surveys

Dimensions of Tourists Personal Values	St. Andrews (N)	Pitlochry (N)
Somewhere peaceful and quiet	8	13
"Peace and Quiet"		
"Not crowded"		
"Plenty of open spaces"		
"No hassle"		
"A sense of freedom"		
Hedonic Reasons	29	24
"To have some fun"		
"Exciting"		
"To have everything done for me"		
"To be waited on for a change"		
Rest and Relaxation	9	9
"Rest and Relaxation by the river / seaside"		
"A place to sit down and watch and unwind"		
"Get away from it all, take stock of my life"		
"Get away from the hustle and bustle"		
"Get myself together"		
The natural environment	30	32
"An area of beautiful, natural scenery"		
"Breathtaking scenery"		
"Incredible views"		
"Clean, unpolluted and bracing"		
Comfort, Familiarity and Convenience	7	8
"No trouble with language barriers and foreign money"		
"Home from home, you don't have to worry"		
"You know what you are getting, much easier than going abroad"		
To learn something	15	12
"Good place for the kids, lots to see and do"		
"Interesting places to visit"		
"Fascinating to learn about your own history, you never get bored"		
"Interesting for children, giving the family something to talk about"		
Visit somewhere famous and well known	8	6
"Able to tell all my friends that I was here"		
Scotland is very well advertised at the moment"		
"Scotland is all over the telly lately, very high profile"		
"There are so many famous places, just like they are in the films"		
Quality time with friends and family and family safety	12	10
"Easy to talk with your friends"		
" You can enjoy the company of your family, go slowly and talk"		
"A safe place for the children"		
"Good family fun, good place to visit with the kids"		
"A great family holiday, gives us a chance to get together"		

Note: N does not = 40 in all cases as respondents may have mentioned more than one reason for visit.

Table 2 Dimensions Of The Destination Attributes Most Important To Tourists Gained From The 1995 Surveys

Dimensions of important attributes	St. Andrews (N)	Pitlochry (N)
Ease of Access "Did not want to travel a great distance" "Good for short breaks" "Convenient for spontaneous holidays" "A good base for touring"	8	10
Good for children "Safer for children than going abroad" "Home from home, good environment for the kids" "The children like it, if they are happy, we are happy"	6	6
The natural environment "Beautiful geography and Scenery" "Beautiful setting, so unspoilt" "Scenic" "Lots of Green" "Beautiful Highlands scenery"	21	24
The natural attributes of the area "Lovely Seafront" "Rugged coastline" "A cut above the average seaside town" "The beautiful riverbank" "Lovely mountainous setting" "The lochs and rivers"	19	24
Cleanliness "Clean and unspoilt beach" "A clean well kept place" "Cleaner than abroad" "Clean air, get away from the city"	4	5
Quietness and open spaces "Peace and quiet" "Peaceful and tranquil" "Not crowded, plenty of open space" "Not too touristy" "Somewhere with room to breathe"	4	8
Historical and architectural interest "Many different points of interest" "A town with character" "Appeals to sense of romantic history" "A unique part of British history" "Small town with traditional architecture" "Good to visit a place with history" "Full of history"	12	7
Walking "Ideal for walks and sitting, picnicking" "Great place to just roam around" "The best place for mountain walks"	14	17

Note: N does not = 40 in all cases as respondents may have mentioned more than one important attribute.

Table 3 Dimensions Of Tourists Concern About Tourism Impacts In The Area Gained From The 1995 Surveys

Dimensions of concern	St. Andrews (N)	Pitlochry (N)
STATED NEGATIVE IMPACTS		
Modernisation / commercialisation "Sites would be created for tourists that were not authentic" "The area would become built up and modernised, it would spoil the look of the town" "Themepark syndrome, no more peace and quiet" "More souvenir shops which would not meet the needs of the locals"	18	23
Overcrowding "The town would become over touristy" "More crowded, busier, which would spoil it" "Queues and crowds" "Would become overrun and lose it's charm"	19	14
Traffic congestion and parking "Increased pressure on parking facilities" "Traffic congestion, particularly with a lot more coaches". "Traffic jams would lead to higher levels of air pollution"	11	18
Increased prices "Prices would go up" "Increased prices, bad for visitors and the people who live here"	5	2
Cleanliness "Litter, rubbish and mess" "Physical erosion of the coastline" "Countryside would become dirtier and need more maintenance"	6	7
STATED POSITIVE IMPACTS		
Better facilities "It would mean better facilities for tourists" "The place is big enough to absorb extra people with a lot of variety for tourists and free natural attractions" "Better maintenance of existing amenities"	9	6
Tourism is business "Scotland needs to rely on it's tourism" "Tourism is important / big business" "Bring in more money" "Attract more business for local shops and hotels" "It is good for local employment" "Tourism employment helps to keep young people local" "creates jobs in a small town"	24	21

Note: N does not = 40 in all cases as respondents may have mentioned more than one tourism impact.

Table 4 Dimensions Of Tourists Attachment Gained From The 1995 Surveys

Dimensions of tourists attachment	St. Andrews (N)	Pitlochry (N)
Place attachment - "Scottishness" "Traditionally Scottish town" "Unique history" "atmospheric, attractive and authentic town" "Fulfils all ideas of a typical Scottish town" "Charming and pretty with character"	14	19
Place attachment - fondness and substitutability "Somewhere totally different from home, its our favourite place" "Nowhere else like it" "We love coming here, we never get bored" "We have been before and wanted to see if it was still unspoilt" "We come every year, we've been coming for years" "Scotland has so much to offer, there are still things to see in this country"	9	11
Attachment to the "natural environment" "You are surrounded by beautiful scenery" "You don't get to see scenery like this everyday" "Enjoy the calm, peace and quiet, soaking up the scenery" "Able to unwind in a beautiful setting" "Typical Scottish scenery" "Typical, like a Scottish river scene in paintings"	22	27 1

Note: N does not = 40 in all cases as respondents may have mentioned more than one feeling of attachment.

A generic range of both terminal and instrumental values were identified from the most frequent dimensions or phrases distilled from the qualitative research. The list was restricted in length so to make the stage 2 interviews viable. The selected values were: a *comfortable life, inner harmony, a world of beauty, true friendship, mature love, pleasure, happiness, wisdom, a sense of accomplishment, freedom, security, a sense of belonging,* and *social recognition.* The values derived were then defined in the vocabulary commonly used by tourists when identifying issues. The values measured in the second, quantitative stage, are summarised in a two dimensional model which facilitated the analysis of values according to their inner or outer (other) direction, and emotional or cognition content within the particular context and situation studied: (Figure 1). Allocations to the four boxes reflect the values derived from the qualitative interviews and the associations made by the respondents in explaining them, interpreted via the Rokeach survey and later work discussed in Chapter 1 of the present study.

As stated at the outset of this chapter, one of the main objectives of the present study is to recognise the contextual and situational nature of values. That is, that values use learned strategies to satisfy needs by either adapting the environment to suit ones needs, or in the adaptation of oneself to a particular situation.

Figure 1 Two dimensional model of tourism values contextualised to survey locations

	Emotion-dominant	Cognition-dominant
Inner Directed	To relax and unwind; get back in touch with myself. Fun Excitement To indulge myself	To learn something interesting
Outer Directed	To be closer to nature To spend quality time with friends and family No hassle Freedom in wide open spaces	A safe place to holiday Somewhere well known so I can tell my friends To learn about my own country

Figure 1 in effect, operationalises this objective in terms of measuring tourists' values pertinent to the context and situation of the interviews. The model also categorises values on the basis of their inner or outer direction, emotional or cognitive content or locus of control. As discussed in Chapter 1 of the present study, this categorisation permits the examination of what these tourists value about their environment and how they value it, in terms of how substitutable it is to them.

It must be recognised that the allocation of particular values to each of the four cells involved some degree of informed subjectivity, guided and informed by the content analysis of the associations given in the qualitative interviews. For example *to learn something interesting* was categorised as inner directed as it reflected the intrinsic value of *a sense of accomplishment;* whereas *to learn about my own country* was categorised as outer directed as from the qualitative interviews it reflected *a sense of belonging* (the direction of the values flowing from Homer and Kahle's 1988 classification). *No hassle* was categorised as outer directed as it flowed from associations with traffic jams or queues at attractions.

Aims Of The Quantitative Research

The main aim of the quantitative research was to measure the generality of the values, dimensions of the environment and holidaymaking behaviour of the tourists visiting the two survey towns, St. Andrews and Pitlochry. To this end, the dimensions of environmentalism pertinent to tourists', the personal values and behaviours derived from the 1995 surveys, were incorporated into scaled items and opinion measures to facilitate responses in a structured questionnaire. This was used to interview a much larger and more representative sample of domestic tourists to the two survey towns (Appendix 2).

On-site structured interviews were selected in preference to on-site self-completion questionnaires due to the bias involved in the latter method as a consequence of the possible poor standard of completion of questionnaires and low and biased response levels. Past tourism research into personal values have used postal questionnaires off-site (For example: Muller, 1991; Saremba and Gill, 1991; Jackson, 1986; Pitts and Woodside, 1986). However, as the present study measures responses in the current tourism context and immediate situation, an off-site postal questionnaire was inappropriate as other contextual values could come into play.

As the interviewer was present to ask the questions, to clarify the use of the Likert scales where these were used, and to ensure that each interview schedule was completed correctly, potential bias problems related to low response levels were minimised. A problem often associated with the use of structured interview schedules

is that the subjective feelings of the informants are reduced to simple referential relationships due to quantification (Walle, 1997). The preliminary exploratory work which informed the structured interview schedule ensured that this reductionism was pertinent to tourist's actual experiences. Past studies relating to the use of structured interview schedules or questionnaires have noted that if carefully designed and implemented, such instruments can yield rigorous and high quality data for a wide range of variables (Veal, 1992; Oppenheim, 1992), albeit in a reductivist form. The questionnaire designed for the 1996 surveys included questions designed to examine and measure the following:

- Reasons for selecting Scotland as a holiday destination
- The attributes of the particular town that were most important when deciding to visit.
- The type and extent of the activities that they had engaged in during their visit (including those that they intended to do).
- The feelings of tourists about tourism development and environmental issues in the area.
- The level of attachment felt by tourists to each town and to similar areas of "natural beauty" generally.
- The socio-demographic characteristics of each respondent.

Most past value research has measured values by using an instrument such as the Rokeach Value Survey (RVS) (Rokeach, 1973) or the List Of Values (LOV) (Kahle, 1983). However, as discussed in Chapter 1, the abstract nature of the values used in

these instruments are problematic. Most other North American tourism behavioural research has adopted Likert scales in their study of the motives and experiences gained from outdoor recreation and leisure (see for example, Williams et al, 1992; Saremba and Gill, 1991; Manfredo et al, 1996; Jurowski et al, 1995). Many of these studies, however, were not on-site visitor surveys but rather postal questionnaires which could be filled out in the respondent's own time. For comparability with these North American studies, seven point scales were originally envisaged for the purposes of the present study, to measure the strength and importance of particular values held by tourists (as expressed reasons for visit), the extent to which they were attached to particular place or class of places, the extent to which their visit was influenced by the particular attributes of the two study towns and their extent of concern about tourism and development in their current (holiday) environment. The intention behind using seven point scales was to generate ordinal data that could be interpreted as interval data in the analysis, thereby creating the possibility of using parametric tests and data reduction if standardised for normality.

However, due to the on-site / street survey method of data collection which was used for the present study, these seven point scales were found to be impractical. The pilot surveys carried out in St. Andrews in May 1996, revealed that respondents found the scales too complicated to comprehend and use. Also, the length of the interview due to the complex nature of the scales for these questions rendered the interview too long. Respondents were beginning to lose interest in the interview before it was finished. In particular, it was found that for the questions relating to both the values

held by tourists and to the importance of particular attributes of the place that only the extreme ends of the scales were used, and not the full scales.

It was therefore decided that a more effective approach to measuring these constructs in the field would be to measure these levels of importance on a three point scale, which would elicit useful data by achieving a hierarchical rating of values and attributes, and would also minimise the length of time required to complete the interview. However, for the questions relating to the strength of feelings held by respondents about their attachment to place and their concern for their immediate environment, it was considered necessary to retain a range of strengths of feeling, as the pilot interviews had indicated that such a range existed, and the respondents had less difficulty in using the longer scales in this context. Five point Likert scales were adopted to address these problems encountered with comprehension and complexity of the seven point scales. Respondents were presented with a card with the five point scale laid out on it, ranging from strongly agree to strongly disagree and the corresponding statement/ question. The question / statement was then read out by the interviewer to reinforce comprehension and the respondent was asked to give his or her corresponding strength of agreement.

A further ten pilot surveys were carried out at the end of May 1996 in St. Andrews, and the revisions made to the original interview schedule appeared to resolve the problems encountered during the first pilot survey. The use of three and five point scales limited analysis of the data to non-parametric tests, mainly two sample chi-square testing, cluster analysis and hierarchical loglinear analysis.

Some open ended questions were also included in the 1996 quantitative interview schedules. Their function was mainly to personalise the interview process, to make the respondents feel relaxed, to get them talking and interest them in the interview in order to sustain their attention and elicit useful responses. However, in order both to keep the interview time to a reasonable length and to facilitate analysis their inclusion was kept to a minimum and they were supplementary to the main scaled questions.

During the months of June to September 1996, 300 interviews were conducted by the author in both St. Andrews and Pitlochry. The sample sizes were slightly smaller than those justified by past research and sampling theory. This suggests that a sample of approximately 380 - 400 interviews is likely to provide an approximation (within 5%) of actual visitor characteristics (Ministry of Tourism and Recreation, 1982; S.E.R.E.N, 1986; Light, 1991). Reduction of the sample size to 300 at each town was to make the fieldwork manageable for one person. However, the size of the sample had to be sufficiently large enough to permit the segmentation of tourists into smaller, homogeneous groups. Smaller sample sizes are highly restrictive for segmentation purposes and past research (Prentice, 1992, Light, 1991) suggests that samples of approximately 400 tourists are important in this context. However, as the emphasis was on the situational commonality between the two towns, for segmentation and loglinear modelling the samples were combined. The number of interviews conducted had to be large enough to permit statistical testing such that the results of the study are generalisable to the whole population of tourists with a certain degree of confidence for the two survey locations, thereby enabling the importance of place as contextual

environment to be controlled for. The large overall sample size was therefore vital in order for the analysis to be robust.

The 1996 surveys were conducted during the peak summer and off peak months. Due to seasonal variations in tourist volumes in Scotland, principal fieldwork was carried out during the peak months of July and August. Given the general view that tourists with strong "environmental" values may avoid the peak periods that traditionally attract "mass" tourists, it was also necessary to interview outside of this period in order that the sample of tourists interviewed was representative and embraced a broad range of values and behaviours. To capture these seasonal variations, interviews were conducted at both locations throughout June to September 1996 on a one week rotation basis . The number of interviews conducted at each of the two towns between June and September 1996 is shown in Table 5.

Table 5 Distribution Of Tourist Surveys Undertaken By Month Of The Year.

Month of Interview	St. Andrews		Pitlochry	
	N	%	N	%
June	60	20.0%	50	17.0%
July	90	30.0%	100	33.0%
August	110	37.0%	100	33.0%
September	40	13.0%	50	17.0%
N =	300	100.0%	300	100.0%

Tourists to the two towns were interviewed adhering to strict rules in order to approximate to randomness. The interviewer followed a particular route of interview sites around the two towns passing the main points at which tourists congregated. At each site, tourists were approached on a next person passed basis (Veal 1992); as interviews were only conducted with British tourists who were resident outwith

Scotland, a preliminary filter question was asked. The interview schedule took approximately 15 - 20 minutes to complete.

As for the present study the interviews were conducted at different points throughout the town, the interviewer (author) generally moved between sites and the respondents were generally stationary i.e. picnicking in groups, resting outside tourists attractions, sitting by the riverside / seafront etc. This was thought to be the best approach to interviewing given the length and complexity of the interview schedule, in this way, the respondents were more comfortable and could concentrate more on the interview process. The refusal rate to take part in the 1996 survey was higher than had been encountered for the exploratory survey in 1995. Approximately one third of the tourists approached, across both towns, refused to take part in the survey. This refusal usually occurred just as the interviewer was seen to approach. The main problem seemed to be that a large catalogue company were also interviewing / selling to people in the high street of both towns during much of the survey period. However, generally, once respondents began the interview they seemed interested in the subject and willing to take part, using the prompt cards prepared with statements and scales carefully and thoughtfully before giving a response.

Quantitative Data Analysis

The present study adopted a combination of bivariate and multivariate testing, as appropriate to the nominal and ordinal data generated from the survey. Analysis was undertaken using SPSS for Windows version 6.1 (1994). Two sample chi-square testing standardised by place was used to test hypothesised relationships. Strength of

the chi-square associations between variables were examined using Cramer's V to allow for the influence of the overall large sample size and table dimensions (SPSS, 1993). Two sample chi-square values, significance level and Cramer's V strength of association coefficient results are shown in tabulated form throughout the thesis where appropriate, or else have been included in the general text. These are generally only shown where chi square significance was <0.05. Where the relationships were not found to be significant at this level, "-" or N/A (as appropriate) is shown in the tables.

As noted earlier in this chapter, two different multivariate analytical techniques were also used: cluster analysis and loglinear analysis. Firstly, cluster analysis was used to group like respondents empirically across their expressed personal values. In this way, a heterogeneous sample is reduced into homogeneous subsets based on similar personal values, thereby identifying similar market segments of tourists broadly sharing similar values (Madrigal and Kahle, 1994; Schwartz and Bilsky, 1987). Secondly, hierarchical loglinear analysis was used to examine the multiple effects of values on the behaviour of tourists. The detailed examination of the interaction effects of values which loglinear analysis permits, enables a fuller understanding of which values are most important. Groups of potential tourists to Scotland or similar places may then potentially be targeted through marketing efforts or design and development of places and amenities may be matched to met the needs of specific groups.

Segmentation was achieved using cluster analysis. Cluster analysis is a general set of methodological tools for estimating groups of similar objects. For the present study,

agglomerative hierarchical cluster analysis was used: a non-parametric (chi-square) clustering algorithm and furthest neighbour distance (resemblance) measure was used as appropriate to the data. The complete linkage, furthest neighbour method was selected because it has been recommended as providing compact clusters which are composed of highly similar cases (Mo et al, 1994, Alt, 1990; Aldenderfer and Blashfield, 1984.)

Agglomerative hierarchical cluster analysis begins with each tourist as a distinct cluster and successively merges the tourists into groups who share a common pattern in their groups of values (Fodness, 1990; Alt, 1990). Ultimately, all tourists will be grouped together, it is therefore necessary to decide at what point grouping should cease. The objective of cluster analysis, to maximise between group variation and to minimise within group variation has been borne in mind when trying to reach an optimum number of clusters. A larger number of clusters will reduce within group variation; however, a large number of clusters may not be manageable (Aldenderfer and Blashfield, 1984; Alt, 1990). Where cluster analysis is used in this thesis, dendograms which display the clustering procedure are provided to highlight where the groups merge at each successive stage of the clustering analysis. Agglomerative hierarchical cluster analysis has similarly been used to segment tourists by their values in other tourism research (Madrigal and Kahle, 1994; Muller, 1991). The deficiency of such clustering approaches is that although like individuals are grouped together in a segmentation, not all of the individuals in a segment are the same. Additionally, most cluster analysis methods are heuristics, and are not based upon an extensive body of statistical reasoning (Aldenderfer and Blashfield, 1984).

In the examination of the relationship between variables, hierarchical loglinear analysis is developed to enable the study of the relative importance of groups of values and the interaction effects of values directly. Loglinear models are a special class of statistical techniques that have been formulated for the analysis of categorical and some ordinal data (Haberman, 1978; Bishop, 1975; Norusis, 1994). These models are potentially useful for examining the often complex relationships in a multiway crosstabulation. They bear some similarity to multiple regression models; however, in loglinear models all variables that are used for classification are independent variables, and the dependent variable is the number of cases in the cell of the crosstabulation (Norusis, 1994). In contrast, regression analysis explores the relationship between a dependent variable and a set of independent variables and is not suitable for use on non-parametric data. Loglinear analysis is used in the present study for several reasons. Firstly, it enables elaboration of the significant relationships that have emerged from the bivariate analysis. Secondly, the relative importance of factors can be examined. Thirdly, it offers the opportunity to uncover the complex relationships between variables at all levels which is the main purpose of the analysis (Knoke and Burke, 1980).

These two forms of modelling used in the present thesis are presented as alternatives to explore the pertinence of multiple values. Cluster analysis is a descriptive technique, which categorises individuals. Loglinear analysis is a predictive technique. Because of the small subsamples that are generated by categorisation, the two techniques are not combined in the present study. However, with a larger sample, predictive modelling for

individual segments could be attempted which would likely produce simpler models, but many more of them. These models would be easier to interpret but their increased number would have implications for their manageability.

Presentation Of The Main Findings

The results of the empirical study i.e. those of the 1996 surveys, are presented from Chapter 6 onwards, in relation to the personal tourism values held by the tourists in the sample. In this way, the way in which these values affect holidaymaking behaviour and feeling for the current environment can be assessed. Firstly, Chapter 4 describes the socio-demographic characteristics of the tourists interviewed and assesses the representativeness of the sample. Chapter 5 on the personal values of tourists aims to examine the values held by the tourists visiting these two survey towns and presents a segmentation of these tourists on the basis of their personal tourism values. This segmentation is further informed by Chapters 6 and 7 which examine the most important attributes of the areas visited for each of the segments and review the activities undertaken by these tourists when visiting the survey areas. Chapters 8 and 9 explore the effect that these tourism values have on attachment to specific place, or a specific class of places, and the subsequent effect on holidaymaking behaviour and the effect that tourism values and attachment to place/places have on tourist's concern for their immediate environment. Chapters 10 and 11 present the loglinear analysis, identifying the conflict and interaction of personal values at all levels, and the subsequent effect on behaviour, attachment to place and concern for the environment is discussed. Finally, Chapter 12 reviews the overall significance of the findings of the

present study and assesses the effectiveness of the segmentation approaches used to measure personal values in the present study.

CHAPTER 3

TOURISM IN SCOTLAND

THE DEVELOPMENT OF TOURISM IN SCOTLAND

The development of Tourism in Scotland and the Highlands has received much academic attention, with studies addressed to a range of issues. For example, reviews of tourism development (Butler, 1985; Durie, 1994; Smout, 1983); Tourism and the environment (Toogood, 1995; Hughes, 1996); Land use and sustainable tourist attractions (Dickinson, 1996; McBoyle, 1996) and more recently, Scotland as iconic place and landscape (Gold and Gold, 1995; McCrone et al, 1995; Prentice and Guerin, 1998). A theme common to these studies is the central role that the natural environment plays in discussions of tourism in Scotland. As a background to the present study, the development of tourism and the evolution of the environment as Scotlands' main tourism asset (STB, 1998c) will be discussed using a staged approach outlining the main stages of tourism development from the eighteenth to the twentieth century.

Butler (1985) identified five overlapping stages of development from the early eighteenth century until the beginning of the twentieth century. These stages reflect the social, economic and technological changes taking place in Britain during those periods. A similar staged approach has been taken by Durie (1994) who identifies three stages of the growth of tourism in the Scottish Highlands, from "Discovery 1770 - 1810", "Expansion 1840 - 1870" to "Consolidation and Challenge 1870 - 1914".

Butlers' (1985) five stages of tourism development begin in the first half of the eighteenth century "The Age of the Explorer" discussing the discovery of Scotland by

early travellers and the arduous nature of travel to the Highlands due to both geography and culture. One of the few forms of recreational travel that existed in Scotland during this period was hunting and shooting, the popularity of which grew markedly throughout the following century and still remains a popular activity in Scotland to date (Butler, 1985;Gold and Gold, 1995; McCrone et al, 1995).

The second stage, 1746-1810 reviews the arrival of the first tourists and the initial improvements in accommodation and communications, which made travel more feasible during this period (Butler, 1985; Durie, 1994).

The growth of the Romantic Movement during the nineteenth century fostered the attractiveness of the natural environment as a place for recreation. An aesthetic appreciation for nature with the countryside as a place of solace, an escape from the city was developed by poets such as Wordsworth, Keats and Blake (McDowell, 1996). Butler (1985) notes the emergence of two different but related types of tourist during this period, the first, "the romantic traveller" drawn to Scotland by the artistic and literary attention paid to the scenery and people of the Highlands, most famously by Sir Walter Scott . It has been argued that "Scott's writings and his recasting of Scottish tradition are pivotal in any analysis of the representation of Scotland" (Gold and Gold, 1995:74). The second type of tourist, "The Aristocratic Sportsman" was attracted to the Highlands by the rental of sporting rights on Scottish estates and a craze for deerstalking. The popularity of this activity and indeed of the Highlands was much influenced by the participation and support of the Royal Family, who purchased Balmoral during this period (Butler, 1985; Durie, 1994; McCrone et al, 1995).

Major innovations in travel and communications made the area much more accessible to visitors with continuing improvements in roads, rail and steamer services creating a significant increase in the numbers of travellers to the Highlands throughout the century. The introduction by Thomas Cook of Leicester of package tours and short excursions from London to Glasgow and Edinburgh opened up the Highlands to visitors and indeed, it is noted, resulted in the appearance of the "mass tourist" (Butler, 1985; Durie, 1994)).

From the middle of the nineteenth century to the beginning of the twentieth century, a stage described by Butler (1985) as "Railways, Hotels and Sportsmen", the future of Scotland as a tourist destination was consolidated. The majority of the hotels in the Highlands were constructed during this period. The development of the railway north, from Glasgow and Edinburgh and the completion of the railway system by the turn of the century opened up many places previously inaccessible to the majority of travellers, establishing a pattern of tourist trade.

As mentioned earlier, the popularity of field sports in the Highlands and Islands grew rapidly and by the late nineteenth century the tourism industry was very much focused on these activities. Tourist guidebooks of the nineteenth century refer to the opportunities for sporting activities such as shooting, fishing and deer stalking. Partially to meet the growth in demand for sport and partially due to a decline in sheep prices, a vast amount of land in the Highlands was in sporting estates and deer forests. By 1912, there were 203 deer forests occupying over three and a half million acres (Weir, 1989:355; Butler, 1985). The image of the Highlands as deer forest, popular

amongst the romantics and "mass tourists" to Scotland throughout the nineteenth century persists today (McCrone et al, 1995; Prentice and Guerin, 1998), as noted by Butler, the total acreage given over to deer forests is still extensive to date. (Butler 1985:385). There was also a marked increase in the recreational use of the mountains. In 1890, the first Scottish ski club was established along with the first Scottish Mountaineering Club Journal (Bennet, 1991) and the Cyclists Touring Club (1878)(Durie, 1994).

Consequent of the expansion in building and construction that took place during this period of industrial and agricultural revolution, the first calls for the protection of the environment in Scotland began to emerge. The opening up of the Glasgow and Edinburgh railway lines discussed earlier saw accusations of vandalism levelled against what was considered to be "disruptive railway construction" (McDowell, 1996). Butler, (1985) notes that early opposition to tourism and tourism developments could be detected, with landowners objecting to large numbers of the public on the hills and strong opposition to attempts to provide access to the countryside to the general public.

This raised environmental and conservation awareness was largely based on growing concerns about the disappearance of florae and faunae due to activities such as field sports. The extent of the loss of wildlife was recorded by early game books and details of the loss of Scottish wildlife was documented in an influential study published in 1920 entitled "The influence of man on the animal life in Scotland" (McDowell, 1996).

The aesthetic appreciation of the environment and the notion that attitudes towards the environment, particularly rugged scenery, were associated with self development that were fostered by the Romantic movement gathered force during the late Victorian period (Prentice and Guerin, 1998). The countryside was increasingly considered the key to recreation and it was during this period that a number of organisations to protect the areas of natural beauty, flora and fauna, places of historic interest and the preservation of open spaces were established. The Victorian interest in self-development and improvement also stimulated a growing awareness and appreciation of the environment (McDowell, 1996; Eckersley, 1994).

TOURISM PRESSURE AND THE SCOTTISH ENVIRONMENT

The early decades of the twentieth century, "The Era of the Automobile" (Butler, 1985) saw a gradual spread of tourists to the Highlands, and excursion trains resulted in an influx of weekend day-trippers to some parts of central Scotland, although the restrictions of World War Two, poor roads and lack of reasonably priced accommodation and facilities somewhat delayed the large scale development of the tourism industry in Scotland (Butler,1985). Butler notes that census data for the Highlands taken in 1921 suggests the undeveloped nature of the tourism industry at that time, recording 7,143 visitors to the area (Butler, 1985).

Over the latter part of the twentieth century, the improvement in infrastructure and transportation, ownership of private cars and an increased amount of leisure time have meant that Scotland is experiencing the effects of high volume visitor pressure.

Tourism in Scotland over the last decade has grown steadily and increased growth is forecasted to continue (STB,1998c). Figure 2 illustrates this steady growth, by 1996, 12.60 million trips by both overseas and domestic tourists to Scotland were recorded, a growth of 28% over the volume recorded in 1991 (STB, 1998c).

Figure 2 Volume and Value of Tourism in Scotland 1991-1996

British Tourists in Scotland			All Tourists in Scotland		
	Trips(mns)	Expenditure(£mns)		Trips(mns)	Expenditure(£mns)
1991	8.2m	£1373m	1991	9.82m	£1951m
1992	8.9m	£1355m	1992	10.70m	£2039m
1993	8.9m	£1546m	1993	10.67m	£2265m
1994	8.5m	£1262m	1994	10.27m	£2078m
1995	9.7m	£1338m	1995	11.66m	£2228m
1996	10.5m	£1493m	1996	12.60m	£2428m

STB 1998c

Tourism in Scotland is a multi-faceted industry made up of over 20,000 businesses, most of these are small private enterprises although an increasing number of public sector organisations and major companies are also involved (STB, 1998c). The tourist industry in Scotland encompasses a wide spectrum of activities but it is the natural and built environment that is most vital to the health of the industry. The quality of the environment in Scotland has historically been valued by visitors and it is widely regarded in Scotland as an economic strength: "Scotland offers a generally high quality of life, and its natural environment and cities generate significant tourist and business visitor opportunities" (STB, 1998c:5)

As discussed earlier, the central role of the environment to recreation and tourism in Scotland, fostered by the Romantic Movement in the nineteenth century persists today. Images of Scotland are emphasised by both the rugged and majestic nature of remote

landscape and the warmth and gentleness of small domestic places as an escape from everyday urban life (Toogood, 1995; Helland, 1997). Scotland is renowned for its diversity of landscapes: rugged coastline, mountain scenery, agricultural land and over 30,000 freshwater lochs. Over an eighth of its land area is contained within designated scenic areas (STB, 1998c). Scotland is also home to much wildlife, birdlife and important flora and fauna habitats partly due to its climate, terrain and location on the outer fringe of Europe. With many geological assets and built heritage assets the environment is recognised as Scotland's main tourism resource (STB, 1998c). The Scottish Tourist Board have recently promoted generic images of the Scottish environment, such as lochs, glens and mountains, to attract more visitors to the country (Gold and Gold, 1995; McCrone et al, 1995; Hughes, 1996; Pritchard and Morgan, 1996; Prentice and Guerin, 1998), positioning Scotland as an "environmentally sound" destination through its marketing campaigns, print and press activities (STB, 1998c).

As a forerunner to the recent promotion of the environmental image of Scotland as a tourist attraction, the Scottish Tourism Co-ordinating group (STCG, 1996) identified market trends which suggested a growing demand for holidays and activities which rely upon environmental resources. Domestic tourists visit Scotland primarily for: the scenery (71%), natural wildlife (35%), the peace and quiet (59%), and historical and ecclesiastical monuments and sites of historic interest (40%). This is reflected in what they do when they come to Scotland: their main activities are based upon the countryside and heritage of Scotland. Over six million overnight visitors to Scotland per year currently participate in at least one form of leisure or recreational activity as

part of their stay. The most popular activities amongst domestic tourists are visiting historical monuments (18%), hiking, rambling or walking (18%) and visiting museums, art galleries and theatres (11%), participation in these activities is examined in the present study.

Given the number of people who take part in outdoor and cultural tourism activities and the growing importance of environmental concerns as factors in the choice of holiday destination the future of Scottish tourism is highly dependent upon the nature and quality of the environment, in its natural, built and cultural forms. In some places, tourism pressure is having a deleterious effect on the Scottish environment, particularly in some localised areas of rare and fragile ecosystems and antiquated built heritage sites. If the future of Scottish tourism is to be ensured, greater environmental awareness needs to be encouraged amongst tourists fostered through tourism promotion and development.

TOURISM MANAGEMENT PROGRAMMES IN SCOTLAND

In response to the Government's 1990 White Paper on the environment This *Common Inheritance* which set out its environmental policy objectives and intentions for action, the Scottish Tourism Co-ordinating Group (STCG) commissioned the Scottish Tourist Board to review how tourism in Scotland could be developed whilst conserving and protecting the environment. Following the review, a report entitled Tourism and the Scottish Environment: A Sustainable Partnership was launched in early 1992 after endorsement by the then Scottish Office Minister for Tourism, Lord Strathclyde.

The conclusion of the report was that the countryside, as Scotland's main tourism asset was under increasing pressure from tourists, and that this pressure was having a widespread effect on the environment. The conclusions also noted that serious effects were only apparent in a few localised areas. The report recommended that greater environmental awareness should be fostered amongst tourists and visitors through tourism promotion and development activities (STCG, 1996). To address these recommendations STCG Tourism and environmental task force was established in 1992, bringing together the main bodies in Scotland with environmental responsibilities. The key aims of the task force are to; i) promote awareness and understanding off the interactions between tourism and the environment; ii) develop a planned approach to tourism development which addresses visitor management; iii) market Scotland as a tourism destination based on the sustainable use of our environment; iv) promote adoption of environmentally sensitive practices.

Against this background the Tourism Management Initiative (TMI) was established. At a local level the TMI is actioned through Tourism Management Programmes (TMPs) which are the link between national and local priorities. The TMI identifies existing or potential problem areas and then the TMPs bring about a solution at a local level. There are currently ten TMP areas in Scotland (Figure 3) which attract a total of over nine million visitors and have programmed £3.8 million of projects (STCG, 1996) . The Tourism Management Initiatives aim to develop Scotland-wide initiatives to tackle priority problem areas such as footpath use, beaches, interpretation and environmental management in the accommodation sector, promote and communicate examples of

good practice and support and promote locally based initiatives which manage the issues relevant to individual sites and destinations.

Figure 3 Area-based TMP Programmes in Operation

Location	Area Covered
St. Andrews	Encompassing the town and parts of the East Neuk.
Pitlochry	Encompassing the town of Pitlochry and district
Calanais	Area immediately around the standing Stones
Great Glen	From the access off A713 to south end of the loch
Loch Doon	Area adjacent to the Callender, Loch Katrine and Doune triangle
Trossachs	North of Lochgilphead
Kilmartin Glen	Upland Footpaths
Skye and Lochalsh	Seafront including Culbin Forest
Nairn	
Cairngorm	Summit above car park

The Study Towns and their Environment

As discussed in Chapter 1 of the present study, past research into environmental values of tourists has looked at values as enduring, guiding principles in everyday life, divorced from the tourists' immediate context (holidaymaking) and situation. Other research has sought to determine profiles of "nature-based" or "Eco tourists" by measuring abstracted environmental attitudes and behaviour when in a "green" or "ecotourist" destination, typically national parks or wilderness areas (Blamey and Braithwaite, 1997; Saleh and Karwacki, 1996; Obua and Harding, 1996; Silverberg et al, 1996). However, it is the tourism values of all tourists to all destinations that need to be examined if responsible tourism strategies are to be useful and effective. The "environment" is any particular holiday destination in which a tourist is situated. Especially in an accessible landscape such as Scotland, it cannot be restricted to designated rural or wilderness sites. Urban and rural destinations are merged in

Scotland as the combination of settled landscape where historic towns feature as a main attraction for visitors to Scotland.

Figure 4 Map of Scotland Showing Locations of St. Andrews and Pitlochry (STB, 1998b)

(Source: STB, 1998b)

The empirical study was carried out in two small towns in Scotland; namely, St. Andrews and Pitlochry. These are urban centres that provide both heritage resources in their own right and form the focus of tourist activity for their surrounding rural landscapes. Tourism pressure has been officially recognised as detrimental in both of the towns and task management programmes are in place. In St. Andrews, the objectives of the programme are broad and mainly relate to enhancing visitor experience and economic benefits. Improving and protecting the quality of life of residents is a stated objective, as is conserving the built environment of St. Andrews. The natural environment is not seen as a key problem in St. Andrews. Similarly, in Pitlochry, key objectives relate to enhancing the visitor experience through development and improving resident's quality of life. Pitlochry has a high level of tourist traffic that is considered inappropriate for a small rural town and there are a number of areas of poor visual appearance. Further, as tourism is of considerable significance to the area, some development is officially perceived as necessary As part of the Task Management Programme initiatives for the area, tourism development in Pitlochry is to be carried out in keeping with the high quality of its surrounding countryside and in sympathy with the Victorian and Edwardian built heritage of the town. Both of these Scottish towns attract a steady flow of tourists throughout the peak months in different tourism environments enabling access to a large sample of diverse tourists. St. Andrews is an urban location in a coastal setting and Pitlochry, an urban location in a rural, riverside setting. A well established and diverse tourism base is common to both towns though specific tourist attractions vary. Both towns offer a wide variety of different historical and ecclesiastical sites of interest and amenities with small theatres and art galleries and are accessible by road and public transport. This

variety in environments, tourist attractions and amenities allowed access to a diverse range of tourists. Common to the two towns is a "heritage product"; both towns have a traditional feel, retaining and recreating their different styles of local architecture and promoting their distinct histories. The two towns were selected as comparable small town environments, with a view to generating a sample, which was situationally similar between them, but different to the daily environments of most tourists visiting them.

St. Andrews

"A beautiful, unusual seaside town" (Lonely Planet Guides, 1996).

St. Andrews is a small coastal town situated in the Kingdom of Fife, it is easily accessible to tourists from the south as there are motorways and dual carriageways all the way to Fife from the South coast of England and all the channel ports (Figure 4). The Kingdom of Fife is well known as "The cradle of Scottish History", location of Dunfermline, the ancient Capital of Scotland and Dunfermline Abbey, Falkland Palace, once home to Mary, Queen of Scots and Culross, a perfectly preserved 16th century Scottish burgh. St. Andrews is perhaps the most famous of the historic sites in Fife: *"There is no single spot in Scotland equally full of historic interest...no place in this country over which the genius of antiquity lingers so impressively"* (Lonely Planet Guides, 1996). For visitors to St. Andrews who are interested in ecclesiastical and historical sites of interest, St. Andrews has some of the most exceptional examples in Scotland: St. Andrews castle ruins, with a unique subterranean passage and "bottle" dungeon; The house of Mary, Queen of Scots and St. Andrews Cathedral which was the largest medieval cathedral in the north of Britain and was for many years a centre

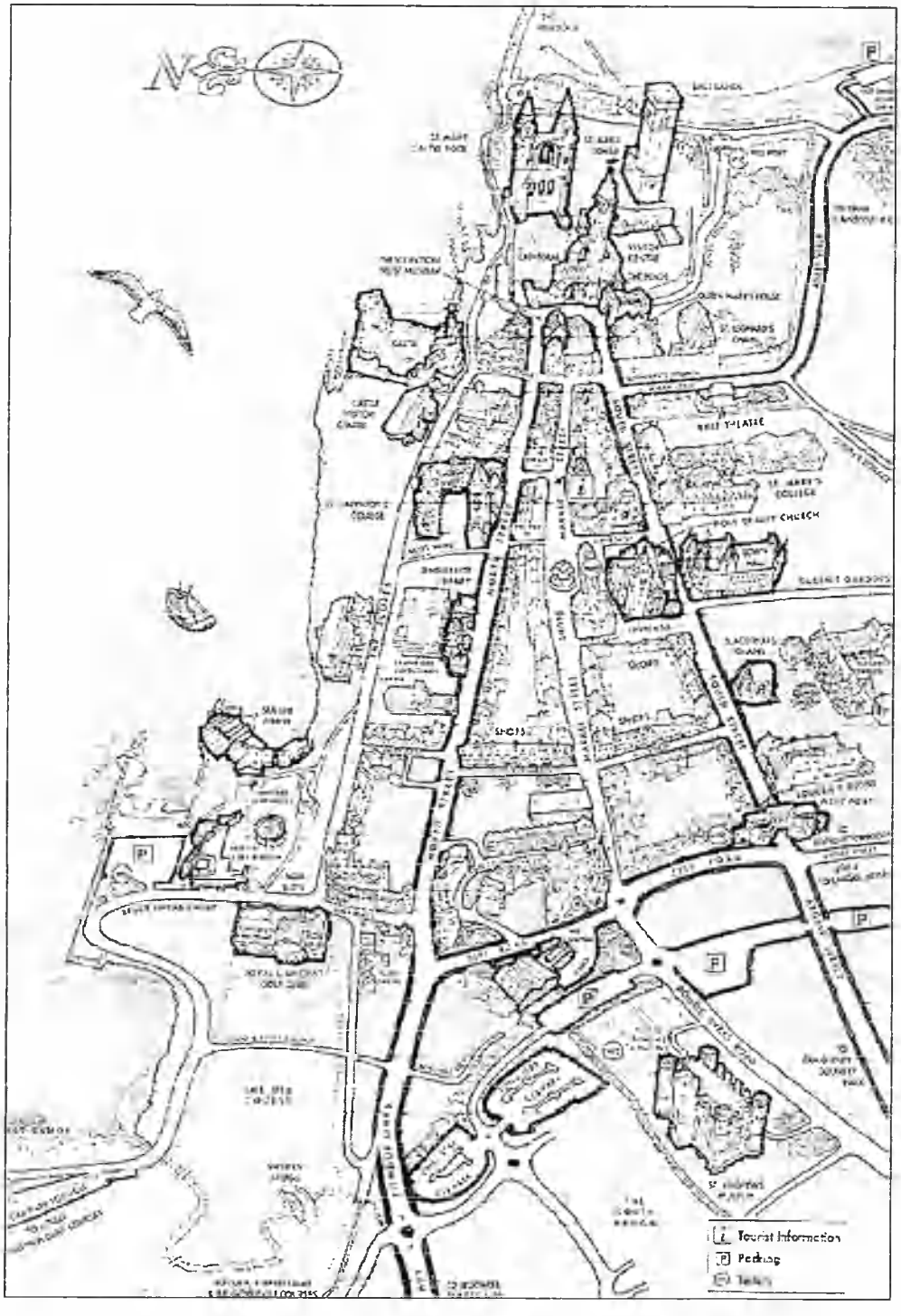
for religious activity and pilgrimage. St. Andrews is also home to the oldest university in Scotland, alma mater to many of the most famous figures in British history. All of these sites are open to the public and include small visitor information centres. As part of the TMP objectives to attract more tourists to the town and increase visitor stay and expenditure, a series of "Living history" plays are performed outdoors throughout the peak tourist months. These short historical dramas attempt to "bring to life" the history behind these monuments in St. Andrews.

St. Andrews is perhaps most famous for being the "Home of Golf". It is thought that golf started in St. Andrews around 1350. The Royal and Ancient Golf Club, the governing body of golf, was founded in 1834 and is based in St. Andrews. Visitors to the town can play on the Old Course or on a number of courses in the town and surrounding area. The Golf Museum, situated next to the Royal and Ancient Club, presents the history of golf using a combination of the most up to date interpretative media techniques and traditional displays. In addition to the golf museum, the St. Andrews museum presents a history of St. Andrews as recounted by people who lived and worked there. There is also a National Trust museum. A map of St. Andrews and the location of attractions there is provided in Figure 5.

In terms of amenities for tourists, St. Andrews has a fairly high concentration of accommodation stock in and around the town with some 80 establishments registered as tourist accommodation with the Scottish Tourist Board (STB, 1998a). This accommodation is mainly provided in small, privately owned establishments, a pattern of tourist accommodation stock common throughout much of Scotland and the

Highlands. The town has a busy town centre providing a standard array of shops, restaurants and services. In addition, there is a local specialisation in the supply of golfing related souvenirs.

Figure 5 Map of St. Andrews Showing Attraction Locations (STB, 1998a)



The natural environment of St. Andrews provides the setting for a number of physical activities. Walking and cycling, around the town or on the Coastal path which stretches for 78 miles from the Forth Bridge to the Tay Bridge. For hikers and climbers there are the Lomond Hills, known as "Fife's Highlands". There are also a number of wildlife attractions in and around St. Andrews, The Sealife Centre on the West Sands in the town, The Ostrich Farm in nearby Cupar and The Scottish Deer Centre at Rankeilour Park, near St. Andrews.

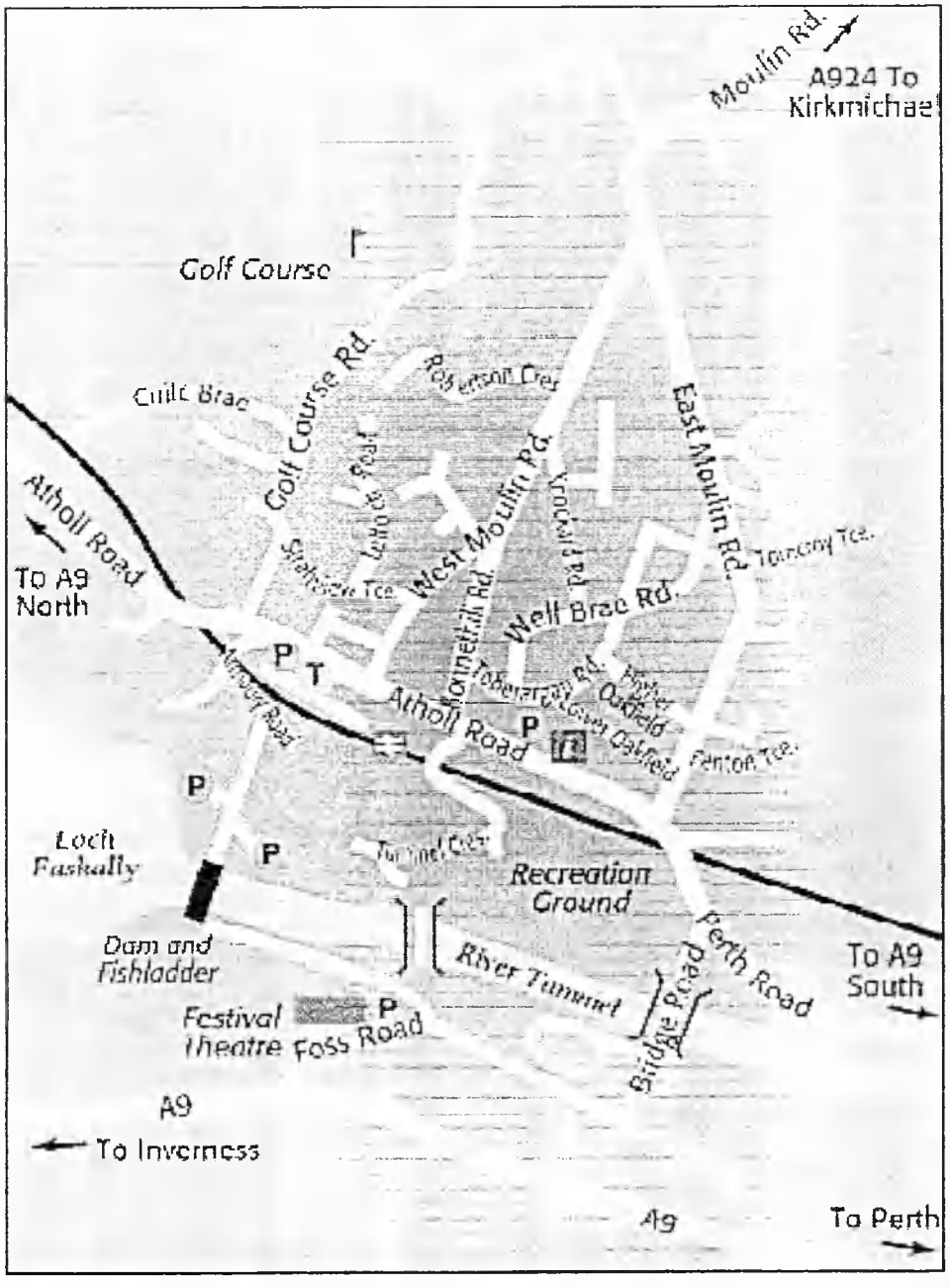
Pitlochry

Pitlochry is located in Perthshire, in the very heart of Scotland, which is linked by rail and by coach to all the main towns in the south of England. Like St. Andrews, it is easily accessible to tourists from the south, as there are motorways and dual carriageways all the way to Perthshire from the South coast of England and all the channel ports (Figure 4). It is perhaps this ease of accessibility that for many years made Pitlochry Scotland's number one inland resort for visitors (STB, 1998b). Its location in the geographical heart of Scotland makes it the ideal place as a base for touring.

Pitlochry is a restored Victorian village. Its main tourist attraction is the Pitlochry Dam and Fish Ladder, where visitors can watch salmon leap upstream and learn the life cycle of the salmon. The Dam is the site of a hydroelectricity plant, which can be visited by tourists. There are magnificent views from the plant over Loch Tummel, including "Queens View" which is said to have been a regular resting place for Queen

Victoria when she regularly visited the are in the 1840's. The riverbank is also the site of the Pitlochry Festival Theatre, which regularly stages a range of plays by Scottish contemporary writers. An art exhibition, exhibiting works by local artists is also set up here during the summer months. The location of the attractions in Pitlochry is shown in Figure 6.

Figure 6 Map of Pitlochry Showing Attraction Locations (STB, 1998b)



Similar to St. Andrews, Pitlochry has some 85 establishments registered as tourist accommodation with the Scottish Tourist Board (STB, 1998b). This accommodation is mainly provided in small, privately owned establishments, as previously noted; this is a pattern of tourist accommodation stock common throughout much of Scotland and the Highlands. The town has a busy town centre providing a standard array of shops, restaurants and services, there is also a notable local specialisation in the supply of Scottish wools and knits.

The natural environment of Pitlochry and the surrounding areas are the main attraction. Perthshire is the home of such "natural wonders" as The River Tay, which is Britain's longest River, from where Britain's largest Salmon was caught and Scotland's oldest distillery, the Glenturret Distillery which has made malt whiskey since 1775. Edradour Distillery, located on the outskirts of Pitlochry is Scotland's smallest Distillery (STB, 1998b), both are open to visitors. The natural environment of the area also permits a number of physical activities to be carried out. Walking, along the riverbank, in the Killicrankie Pass or in the Grampian Mountains. The River Tay and the numerous Lochs in the area offer fishing, sailing, windsurfing, canoeing and many other watersports. There are also a number of wildlife attractions located around Pitlochry. These include The Auchingarrich Wildlife Centre, set in the hills which houses rare birds and animals and a working hatchery; The Drummond Trout Fishery, where visitors can learn to trout fish and The Vane Farm nature trail and bird observation hide, overlooking Loch Leven, near Kinross. Pitlochry is also famous for its Scottish Mill shops, which sell Knitwear and other Scottish products at greatly reduced prices.

CHAPTER 4

THE SOCIO-DEMOGRAPHIC PROFILE OF TOURISTS TO ST. ANDREWS AND PITLOCHRY

The Use Of Socio-Demographic Data In Tourism Research

Demographics are the most frequently gathered data for identifying the characteristics of tourists. Having a detailed understanding of the needs and requirements of different consumers is fundamental to the principles of marketing. Although the breadth of such needs may be recognised, it is unrealistic to customise products or services to suit each individual. Tourism marketing, in particular is moving away from mass marketing towards a market segmentation approach, where the focus is on a particular group (or groups) of consumers as a way of attempting to deal with, and satisfy, a diverse range of consumer needs. With the rise in the interest of "green" tourism or "ecotourism" in particular, concerted efforts are being made to define this new, emerging market segment.

A number of studies have been conducted which specifically investigated the relationship between demographic variables and participation in leisure activities (e.g. Michie, 1986; Thornton et al, 1997; Alexandris and Carroll, 1997). Age, gender and level of education are the main demographic variables that have been investigated and found to be significantly related to participation in leisure activities. Literature seeking to profile the ecotourist has concentrated on the socio-demographic characteristics of these tourists (Hvenegaard et al 1989; Willancy and Eagles 1990; Kretchman and Eagles 1990; Fennell and Smale 1992; Boo 1990; Ballantine and Eagles 1994). Kretchman and Eagles (1990) study of Canadian ecotourists was one of the first to go beyond characterisation by demographic data alone. They analysed the importance to ecotourists of particular destination attractions by their travel motives and found travel

motives to be a better predictor of destination attraction importance than demographic data alone.

Other tourism research has used cluster analysis as a market segmentation technique with socio-demographic variables as a framework, supplemented by other descriptor variables. For example, Muller (1991), used demographic or media-usage data to identify an appropriate communication medium for market segments by clustering on values and attractiveness attributes of city destinations. Silverberg et al 1996 used cluster analysis to determine demographic and psychographic profiles of nature based travellers to the south-eastern United States. Segmenting ecotourists by demographic and sociographic characteristics alone is not particularly helpful to tourism planners and managers for several reasons. Firstly, individuals of all incomes, ages, sexes are likely to be found in every market. Secondly, it is not useful for marketing purposes since it is virtually impossible to target a market based on such dimensions (Dube 1993). This is because socio-demographic segmentation takes into account only the physical aspects of the consumer and not the behavioural aspects or experiences demanded. Socio-demographic data has, however, been found to enhance market segmentation based on personal values (Madrigal and Kahle, 1994; Homer and Kahle, 1988; Kamakura and Novak, 1992).

Socio-Demographic Profile Of Tourists

The aim of this chapter is to set out the socio-demographic profile of the domestic tourists interviewed at each of the two Scottish towns used as survey sites.

Comparison of tourists are made both between the two survey towns, and also with the UK census (CSO, 1991); Regional and Social Trends (CSO,1997a&b) population characteristics statistics; and Scottish Tourist Board (STB,1996) figures for British visitors to Scotland. These comparisons are made to determine whether or not the socio-demographic profile of the sample interviewed for the present study can be considered representative.

The socio-demographic profile and analysis of the 600 tourists interviewed for the present study is set out in Tables 6 to 10b.

Gender Profile Of Tourists

There is no significant difference in the gender profiles of the samples between the two towns (Table 6). There was a slightly higher proportion of female respondents included in the sample at St. Andrews, 58.3% compared with 51.2% at Pitlochry, but this difference is small. The two genders are fairly equally represented across both towns.

Table 6 The Gender Profile Of Tourists To St. Andrews And Pitlochry

Gender	St. Andrews		Pitlochry		Both Towns	
	N	%	N	%	N	%
Male	125	41.7	146	48.8	271	45.2
Female	175	58.3	154	51.2	329	54.8
N =	300	100.0	300	100.0	600	100.0

Age Profile Of Tourists

Analysis of the tourists to St. Andrews and Pitlochry in terms of their age profile showed no statistically significant differences between the two towns.

The majority of the adults interviewed were aged between 21 - 40 years, irrespective of town that they were visiting. This age group represents 52.9% of the sample across both survey towns (Table 7). Comparison of age profiles with other surveys pertaining to British tourists to Scotland is problematic due to the lack of standardisation between the age categories used for surveys by different organisations.

Table 7 The Age Profile Of Tourists At St. Andrews And Pitlochry

Age in Years	St. Andrews		Pitlochry		Both Towns		Age in Years	British tourists to Scotland 1996	UK pop. 1995 (58.6m)
	N	%	N	%	N	%		%	%
16 - 20	34	11.3	34	11.3	68	11.3	0 - 14	8.0	21.0
21 - 30	69	23.0	70	23.3	139	23.2	15 - 24	18.0	12.0
31 - 40	85	28.3	93	31.0	178	29.7	25 - 34	20.0	15.0
41 - 50	44	14.7	43	14.3	87	14.5	35 - 54	35.0	26.0
51 - 60	32	10.7	28	9.3	60	10.0	55 - 64	9.0	10.0
61 - 70	22	7.3	21	7.0	43	7.2	65+	11.0	16.0
70+	14	4.7	11	3.7	25	4.2			
N =	300	100.0	300	100.0	600	100.0		100.0	100.0

However, comparison with age profiles for the UK population suggests that the younger age range of 16-40 years is substantially over represented in the sample for the present study. Forty one per cent of the British population generally are aged between 16 -44 years and 37.3% aged 45 years and over (CSO, 1997a). In comparison, of all the tourists in the sample for the present study, 62.6% were aged between 16 and 40 years.

Social Class

Individual classification was considered to be most appropriate for social class, rather than head of household's, given that the focus of the present study is on **personal** values. Some difference was found in terms of the social class profile for tourists to St. Andrews and tourists to Pitlochry, although this difference was slight as indicated by the weak Cramer's V strength of association coefficient (Cramer's V=.16658) (Table 8).

Table 8 The Social Class Profile Of Tourists Visiting St. Andrews And Pitlochry (Individual Classification)

Social Class (individual classification)	St. Andrews		Pitlochry		Both Towns		UK adult pop. 1996 (47.0m)	Social Class (individual classification)	British tourists to Scotland 1996
	N	%	N	%	N	%	%		%
Class I	29	9.7	31	10.3	60	10.0	6.0	AB (Prof/Man)	28.0
Class II	85	28.3	66	22.0	151	25.2	29.2		
Class III NM	73	24.3	69	23.0	142	23.7	21.8	C1 (Skill NM)	33.0
Class III M	32	10.7	50	16.7	82	13.7	19.6	C2 (skill M)	20.0
Class IV	34	11.3	36	12.0	70	11.7	15.1	DE	19.0
Class V	29	9.7	43	14.3	72	12.0	5.3	(part skill / unskilled)	
Student	18	6.0	5	1.7	23	3.8	–	N/A	–
N =	300	100.0	300	100.0	600	100.0			100.0

Pearson's $\chi 2$ value = 16.64848, Pearson's $\chi 2$ significance = .01067, Cramer's V = .16658

The social class profile of the tourists interviewed was found to be represented by a disproportionately higher number of "white collar" workers in managerial and technical and skilled non manual employment, compared to workers in other occupations (Table 8). This finding was consistent across both towns, although visitors to Pitlochry were represented by a slightly higher proportion of skilled manual, part skilled and unskilled workers. Of all the tourists to Pitlochry, 16.7% were employed in skilled manual occupations, 12.0% in partly skilled occupations and 14.3% in unskilled occupations. In comparison, of all the tourists to St. Andrews, 10.7% were employed in skilled

manual occupations, 11.3% in partly skilled occupations and 9.7% in unskilled occupations.

In terms of the social class profile of the adult UK population generally, the social class groupings for the sample can be considered as roughly comparable. Twenty nine per cent of the economically active population are employed in managerial and technical work (social class 2) and 21.8% of the population in skilled non manual occupations (Social class 3NM) (CSO, 1997a), compared with 25.2% of the overall sample of tourists in managerial and technical work (social class 2) and 23.7% of the population in skilled non manual occupations (Social class 3NM).

The social class profile of the sample is also fairly similar to known patterns of UK holidaytaking. Of British people in professional / managerial occupations , 44% are likely to take a domestic holiday, similarly, 37% of those in skilled non-manual occupations are likely to holiday in Great Britain (CSO,1997a). Scottish Tourist Board figures indicate that the majority of British Tourists to Scotland are from social class groups AB (professional / managerial), 28%, and C1 (skilled non-manual), 33%, (STB, 1996). Findings for the present study reflect this trend. Of the overall sample of tourists to both Scottish towns, the majority were employed in managerial and technical work (social class 2), and skilled non- manual occupations (Social class 3NM), (25.2% and 23.7% respectively).

Educational Attainment

The educational attainments of the two samples shows some differences between the two towns. Overall, respondents in Pitlochry were less formally educated than tourists in St. Andrews, although the extent of the difference is not strong as indicated by the Cramer's V strength of association coefficient (Cramer's V=.19461) (Table 9). This slight difference might be expected given the social class profile of the tourists to the two towns discussed earlier (Table 8).

Table 9 The Educational Attainment Profile Of Tourists Visiting St. Andrews And Pitlochry

Highest Educational Qualification	St. Andrews		Pitlochry		Both Towns	
	N	%	N	%	N	%
None	33	11.0	59	19.7	92	15.3
GCSE or equivalent	51	17.0	57	19.0	108	18.0
HE below Degree level	75	25.0	70	23.3	145	24.2
First Degree	52	17.3	44	14.7	96	16.0
Professional Qualification	54	18.0	60	20.0	114	19.0
Higher Degree	35	11.7	10	3.3	45	7.5
N =	300	100.0	300	100.0	600	100.0

Pearson's $\chi 2$ value = 22.72492, Pearson's $\chi 2$ significance = .00038, Cramer's V = .19461

The educational attainment characteristics of the sample surveyed showed that the majority of respondents across both towns were educated at least to a standard of higher education (Table 9). It is at the extremes of attainment that there were notable differences between visitors interviewed in the two towns: the number of respondents with no educational qualifications, was higher in Pitlochry (19.7%), than St. Andrews, (11.0%). Eleven per cent of those interviewed in St. Andrews had further degree qualifications, compared with only 3.3% at Pitlochry. The middle range of educational attainments were similar between the survey towns.

The Presence And Age Of Child(ren) In The Personal Group

There were no statistically significant differences found between the two towns in terms of the presence or absence of children in tourist's personal group. The majority of respondents interviewed in both survey towns were visiting without child(ren) in their personal group (Table 10a). This was consistent across both towns. Of those respondents who did have child(ren) in their personal group, they were most likely to be of primary school age (Table 10b).

Table 10a The Presence Of A Child Or Children In The Personal Groups Of Tourists Visiting St. Andrews And Pitlochry

	St. Andrews		Pitlochry		Both Towns	
	N	%	N	%	N	%
Child(ren) in visiting party.	121	40.3	122	40.7	243	40.5
No child(ren) in visiting party.	179	59.7	178	59.3	357	59.5
N =	300	100.0	300	100.0	600	100.0

Table 10b The School Age Of Child(ren) Present In The Personal Groups Of Tourists Visiting St. Andrews And Pitlochry

School Age	St. Andrews		Pitlochry		Both Towns	
	N	%	N	%	N	%
Pre - school	35	28.9	37	29.8	72	40.5
Primary	64	52.9	58	46.8	122	59.5
Secondary	22	18.2	29	23.4	51	59.5
N =	121	100.0	124	100.0	245	100.0

Summary

The findings presented in this chapter showed that the majority of visitors to the two Scottish towns surveyed were in the young to middle age range of 21 - 40 years, in predominantly white collar managerial or skilled non-manual occupations with a moderate degree of educational attainment, visiting without children. This profile is

largely concurrent with Scottish Tourist Board figures for British visitors to Scotland in 1996, and with UK census and Social Trends figures for the UK population generally. The sample for the present study can then be considered as roughly representative of the British population as a whole. The socio-demographic analysis of the visitor profile to the two towns has also shown that in terms of socio-demographic characteristics there is little significant difference between the two survey towns. Therefore, where appropriate to the analysis in the present study, the sample can be treated as aspatial,

CHAPTER 5

ENVIRONMENTAL TOURISTS AND "OTHER" TOURISTS TO SCOTLAND

Environmental Values Of Nature- Based Or Ecotourists

Nature-based tourism or ecotourism represents a relatively new segment of the tourism market. Tourism research since the early part of this decade has led to a wide variety of techniques being employed to help understand the profile of this market in terms of common characteristics and key motivations. Although much tourism is characterised by multiple motivations, a particular combination of motivations have been found to characterise ecotourists as distinct from other tourists. For example, in a study comparing behavioural responses of Canadian ecotourists to other Canadian tourists, Kretchman and Eagles (1990) found that ecotourists wanted to travel to experience natural phenomena, but also to be physically active, to learn about nature and to meet people with similar interests. This study also found that ecotourists were not necessarily motivated by good weather, the desire to relax on holiday or to be in a safe environment, strong motivations for other tourists. Results of this study seemed to indicate that motives of ecotourists differed from those of other tourists.

Ryel and Grasse (1991) defined nature-based or "ecotourists" as individuals who have a strong interest in exploring the natural wonders of the world, and who also possess an appreciation for natural history as well as a desire to preserve wildlife and traditional culture. In some contrast, Wight (1996b) in her profile of North American ecotourists argues that the primary motivation for ecotourists are to enjoy scenery and nature, experience new places, and to study or learn about nature or other cultures. This is in contrast with other tourists who are more likely to want to relax and be with

friends and family. However, Wight's description can be applied to many types of cultural and landscape tourists (Prentice, 1997a).

Valentine (1993) has argued that several types of nature-based tourists exist who will likely vary in their holiday making behaviours. One study which takes the likely differences of this market into account is that of Silverberg et al (1996) who examined the psychographics of nature based travellers to the South Eastern United States using the New Environmental Paradigm Scale (Dunlap and Van Liere 1978) to measure consumptive or appreciative attitude towards the environment. This study found that their sample of nature based tourists could be distinguished on the basis of their importance loading of six benefit / motivation dimensions of nature based tourism: Education / History, Camping / Tenting, Socialising, Relaxation, Viewing Nature and Information. In addition they suggest that nature-based tourists are looking for a package of benefits in their participation in nature based activities. The authors conclude that demographic and trip characteristics of individuals may be better predictors of these benefits / motivations than attitude towards the environment.

Nature-Based Tourism In Scotland

Nature-based tourism as both setting of and focus for activities is very important to visitors to Scotland. The Scottish Tourism Co-ordinating group (STCG, 1993) identified market trends which suggested a growing demand for holidays and activities which rely upon environmental resources. Domestic tourists visit Scotland primarily for: the natural landscape and scenery (82%), peace and quiet (59%), the natural

wildlife of Scotland (35%) and historical and ecclesiastical monuments and sites of interest (40%) (STCG, 1996).

As motivations for visiting Scotland for tourism purposes these reasons reflect the values found to be prevalent among nature based or ecotourists in other research, namely, *to be closer to nature*, *freedom in wide open spaces* and *to learn something interesting*. Equally, they may describe generalist visiting to view landscape, rather than specific nature activities as a focus (Prentice, 1997a).

Identifying Dominant Values Amongst Environmental Tourists

The most common indicator of nature-based tourism identified in the literature previously discussed is the desire to be in settings of natural beauty, reflected by the value *to be closer to nature*. This can be explored in the present context from the survey data. This distinguishes ecotourists from "viewers".

The relationship between the value *to be closer to nature* and all the other values measured for the present study is shown in Table 11. It was found to have extensive but individually weak relationships with the other tourist values measured as indicated by the Cramer's V strength of association coefficients. Some stronger associations were found for its relationship to the tourist values: *to relax and unwind* (Cramer's V = .23777), *to learn something interesting* (Cramer's V = .24363), and particularly for *freedom in wide open spaces* (Cramer's V = .36044). Of all those people who rated *to be closer to nature* as very important, 60.0% also rated *to learn something interesting*

as very important, compared to 41.1% of other respondents. Of all those people who rated *to be closer to nature* as very important, 85% also rated *to relax and unwind* as very important, compared to 66.4% of other respondents. Of all those people who rated *to be closer to nature* as very important, 85.5% also rated *freedom in wide open spaces* as very important, compared with 55.6% of other respondents.

Table 11 Crosstabulation Of Tourism Value To Be Closer To Nature *By All Other Tourism Values Measured*

Tourism Value	$\chi 2$ =	Sig. at:	Cramer's V
To relax and unwind, get back in touch with myself.	67.95448	.00000	.23777
No hassle	26.43882	.00003	.14831
To spend quality time with friends and family	10.46817	.03324	.09332
Fun	--	--	--
Excitement	29.88052	.00001	.15767
To indulge myself	14.87991	.00496	.11126
To learn something interesting	71.34656	.00000	.24363
Freedom in wide open spaces	156.15594	.00000	.36044
A safe place to holiday	19.66840	.00058	.12792
Somewhere well known so that I can tell my friends	22.69432	.00015	.13741
To learn about my own country	36.91521	.00000	.17525

Note: Significance levels of $\chi 2$ values are shown only where these are < 0.05

These more strongly associated values of *freedom in wide open spaces*, *to be closer to nature* and *to learn something interesting* concur with some of the motivations reported for ecotourists evidenced elsewhere. Motivation to be closer to nature, in open, wilderness, natural settings and learning something new and interesting are widely reported to be strong amongst ecotourists. In contrast, the value of relaxation has been found to be negatively associated with ecotourists (Kretchman and Eagles 1990). However, although the association between the value *to be closer to nature* and *to relax and unwind* is disproportionately strong for the present sub-sample, this value was found to be very important generally across the overall sample with 66.4% citing it.

"Environmental" Tourist Index

Given the strength of association between the tourism values of *to be closer to nature, freedom in wide open spaces* and *to learn something interesting* commented on earlier and the recurrence of these values in other tourism studies for ecotourists', a composite index of these three values was created for the present study to identify ecotourists or "environmental" tourists among the sample.

The "environmental" tourist value index was derived from the tourism values measured in the present study that were found to be most strongly associated with the value *to be closer to nature*, the most common indicator of ecotourists in past research. The values included in the index were *to be closer to nature, freedom in wide open spaces* and *to learn something interesting*. These values were not only found to be strongly associated with the value to be closer to nature (Table 11) but were also found to be consistent with the findings of ecotourists motivations in other studies (Wight 1996b; Kretchman and Eagles, 1990; Silverberg et al, 1996; STCG, 1993; Ryel and Grasse, 1991).

The tourist environmental value index was computed by taking all those tourists from the overall sample who rated the environmental indicator values of *to be closer to nature, freedom in wide open spaces* and *to learn something interesting* as very important reasons for choosing Scotland as a holiday destination on the three point scale. This is a very stringent identification of environmental tourists. Of the total sample of six hundred respondents, 120 tourists (20%) of the overall sample were found to fall into the "environmental" tourist segment and 480 tourists (80%) may be

described as "other" tourists. Throughout the rest of the present study, these two groups of tourists will be referred to as *environmental tourists* and *"other" tourists.*

As discussed earlier in this chapter, past research has found that several types of nature-based or ecotourists exist (Valentine, 1993), and that these tourists can be distinguished on the basis of the importance that they place on different motivation dimensions of tourism (Silverberg et al, 1996). The environmental tourist group identified from the sample was found to have extensive but individually weak relationships with the other tourist values measured as indicated by the Cramer's V strength of association coefficients (Table 12).

Table 12 The Importance Of "Other" Tourism Values To The Environmental Tourist Segment.

Tourism Value	$\chi 2$ =	Sig. at:	Cramer's V
To relax and unwind, get back in touch with myself.	32.99003	.00000	23429
No hassle	14.07283	.00088	.15302
To spend quality time with friends and family	7.76177	. 02063	. 11364
Fun	20.87840	.00003	.18639
Excitement	58.28428	.00000	.13141
To indulge myself	8.44616	.01465	.11855
A safe place to holiday	21.29885	.00002	.18825
Somewhere well known so that I can tell my friends	32.36316	.00000	.23205
To learn about my own country	59.81316	.00000	. 31547

Note: The Tourism values by which the segment of environmental tourists were defined are omitted from this analysis.

However, some strong associations were found for the tourist values *to relax and unwind* (Cramer's V=.23429), *somewhere well known so that I can tell my friends* (Cramer's V= .23205) and *to learn about my own country* (Cramer's V=.31547). Of all those people who were segmented as environmental tourists, 88.3% thought it was very important *to relax and unwind,* compared to 60.9% of other tourists. Of all those people segmented as environmental tourists, 31.7% thought it was very important *to*

visit somewhere well known so that they could tell their friends, compared with 11.0% of other tourists. Of all those people segmented as environmental tourists, 60.8% thought it was very important *to learn about their own country,* compared to 24.7% of other tourists.

From the preceding analysis, it would appear that environmental tourists to Scotland primarily want *to relax and unwind, to learn about their own country* and *to visit somewhere well known so that they can tell their friends* (Table 12). Some of these findings are consistent with those evidenced elsewhere in the literature examining the motivations and values of nature based or ecotourists. Wanting to learn is a characteristic much associated with ecotourists, expressed explicitly as wanting to learn about nature and wanting to learn about indigenous culture (Kretchman and Eagles 1990; Crossley and Lee 1994; Wight 1996b) and also expressed implicitly by the motivation to try new foods, experience new lifestyles (Fennell and Smale 1992; Eagles 1992) explore new experiences and to see cultural activities and local crafts (Canadian Heritage 1995; Eagles 1992). This is supported by the high importance ecotourists place on information availability. Research identifying components critical to the ecotourist having a positive touristic experience found that lack of information and knowledgeable personnel at attractions and sites were the greatest source of dissatisfaction cited (Salah and Karwacki 1996). The motivation for relaxation and escape and entertainment has also been noted by Crossley and Lee (1994) as very important to ecotourists who select a destination with learning as their primary reason.

Environmental Or Nature-Based Tourists And Socio-Demographic Characteristics

As commented on in Chapter 4, previous studies seeking to profile nature-based or ecotourists have focused on the demographic indicators of this group of tourists, Indeed, Kretchman and Eagles (1990) study of Canadian ecotourists was one of the first to go beyond characterisation by demographic data alone (Salah and Karwacki 1996). Table 13 sets out a comparative analysis of demographic indicators for nature based or ecotourists found in previous studies and those found for the present study.

There appears to be some variation in past ecotourism studies about the age of ecotourists ranging from the ages 30 to 54 , although the consensus amongst researchers is that the ecotourist falls in the older age range and does not include many tourists under the age of 30. Environmental tourists in the present study are most likely to fall within this common age range, with 51.7% aged between 31 – 50 years of age.

The gender split between the environmental tourists for this study showed that environmental tourists were more likely to be female (60.0%), compared with 40.0% male. The gender profile of ecotourists in the literature has varied; some have reported a similar majority of females (Willancy and Eagles 1990; Kretchman and Eagles 1990; Ballantine and Eagles 1994), a majority of males (Saleh and Karwacki 1996; Silverberg et al 1996; Fennell and Smale 1992) or an even split of males and females (Wight 1996a; Boo 1990). However, the literature has consistently suggested that ecotourists tend to be much better educated than general tourists (Wight 1996a; Saleh and Karwacki 1996; Silverberg et al 1996; Hvenegaard et al 1989; Willancy and Eagles

1990; Kretchman and Eagles 1990; Fennell and Smale 1992). In contrast, the educational attainments for environmental tourists for the present study were not found to concur with these findings; 42.8% of the sample of environmental tourists reported having a university education, a significantly lower percentage than reported in previous studies. This may in part reflect differences in the educational profiles of North American and British respondents of comparable employment status.

Table 13 Comparative Analysis Of Demographic Indicators For Nature Based Or Ecotourists

Study	Average Age	Male/Female Ratio (%)	Average Income (US $)	University Education (%)	Social Class	Children yes/no (%)
Present study (1997)	**31 - 50**	**40 / 60**	**N/A**	**40.8**	**Social Class 1&2 (Professional / Managerial)**	**40 / 60**
Wight (1996a)	35 - 54	50 / 50	N/A	82.0	N/A	24 / 76
Saleh and Karwacki (1996)	40.5	60 / 40	N/A	65.3	Middle Class	14 / 86
Silverberg et al 1996	40 - 50	80 / 20	30,000 - 49,999	70.2	Professional / Technical	N/A
Hvenegaard et al (1989)	49	N/A	56,000	62.4	N/A	N/A
Willancy and Eagles (1990)	53	36 / 64	52,361	60.0	N/A	N/A
Kretchman and Eagles (1990)	49	47 / 53	69,556	66.0	N/A	N/A
Fennell and Smale (1992)	54	55 / 45	70,000	66.0	N/A	N/A
Boo (1990)	44	51 / 49	N/A	N/A	N/A	N/A
Ballantine and Eagles (1994)	49	45 / 55	72,523	47.0	N/A	N/A
Tourism Research Group (1988)	30 - 50	N/A	High	N/A	N/A	N/A

Adapted from Salah and Karwacki 1996

Environmental And "Other" Tourists - A Comparison Of Socio-Demographic Characteristics

Wight (1996a) in her study of the market profile of North American ecotourists made a comparison between general tourists and ecotourists. Wight found that some slight demographic differences did exist between the two groups. Ecotourists were found to

be older, with an average age between 35 and 54 compared with general tourists who had an average age between 25 and 44. Ecotourists were also found to be better educated, 82.0% had a college degree compared with 45.0% of general tourists. Ecotourists were also less likely to have children, 35.0% of general tourists had children in the family compared with 24.0% of ecotourists.

There was little difference between the two groups in terms of socio-demographics of environmental tourists and the group of "other" tourists. Age was an exception, although the effect was weak as indicated by the Cramer's V strength of association statistic (Table 14). A comparative analysis of the socio-demographic profile of environmental tourists and "other" tourists for the present study is presented in Table 15.

In common with the findings of Wight (1996a), environmental tourists were found to be slightly older than "other" tourists. Of the environmental tourist group, 51.7% were aged between 31 - 50 compared with only 42.4% of "other" tourists. In contrast with the findings of Wight (1996a), environmental tourists were not found to be better educated than "other" tourists, nor were they more likely to have children. Social class derived from occupation for the two groups showed a slight though not statistically significant difference between environmental and "other" tourists. Of the tourists in the environmental group 10.8% were in social class group 1 (Professional), 27.5% in social class group 2 (Managerial / Technical) and 18.3% in social class group 3 (Skilled non-manual). In comparison, of the tourists in the "other" tourists group,

9.8% were in social class group 1, 24.5% in social class group 2 and 24.9% in social class group 3.

Table 14 Crosstabulation Of The Environmental Tourism Index Variable By Socio-Demographic Characteristics

Socio-demographic characteristics	Significant differences between the groups		
	$\chi 2$ =	Significant at:	Cramer's V =
Gender	--	--	--
Age	13.86273	.03121	.15188
Presence of Children in Personal Group	--	--	--
Educational attainments	--	--	--
Social Class	--	--	--

Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

Table 15 Comparative Analysis Of Socio-Demographic Indicators Of Environmental Tourists And "Other" Tourists

	Male/Female Ratio (%)	Average Age	University Education (%)	Social Class	Children yes/no (%)
Environmental tourists	40 / 60	31 - 50	40.8	Social Class 1& 2 (Professional / Managerial)	40 / 60
Other tourists	47 / 53	21 - 40	42.8	Social Class 2 & 3NM (Managerial / Skilled Non Manual)	40 / 60

Environmental Tourist And "Other" Tourist Value Clusters

As previously discussed, past research examining the motivational and behavioural profiles of nature based or ecotourists generally imply that ecotourists are a homogeneous subset of tourists, although other research (Valentine 1993) has argued that several types of nature based tourists exist who will likely vary in their holiday making behaviours. One study which takes the likely differences of this market into account is that of Silverberg et al (1996) discussed earlier in this chapter, who found

that their sample of nature based tourists could be distinguished on the basis of their importance loading of six benefit / motivation dimensions of nature based tourism: Education / History, Camping / Tenting, Socialising, Relaxation, Viewing Nature and Information. They also suggested that nature based tourists are looking for a package of benefits in their participation in nature based activities. These authors concluded that demographic and trip characteristics of individuals may be better predictors of these benefits / motivations than attitude towards the environment.

As shown by the analysis of tourism values among environmental tourists and other tourists, values are indeed, multiple. Additionally, it has been argued in Chapter 1 of the present study that it is a combination of values, rather than a single dominant value that will affect behaviour (Rokeach 1973) and that values are grouped in a value system where values are ordered according to importance (Schwartz and Bilsky 1987). Single values are grouped in this system based on their similarities and differences into value domains: for example, the values of fun and excitement reflect a hedonic domain, accomplishment and self-fulfilment reflect an achievement domain (Schwartz and Bilsky 1987; Madrigal and Kahle 1994).

As values are multiple for many individuals, the configuration of values held by differing market segments must form an important part of the analysis in order to identify the combination of values or "value systems" held by distinct groups of tourists. This may be achieved by identifying common patterns in the values held by tourists and highlighting the distinguishing characteristics between prominent groups of tourists. Segmentation of tourists by common value domains has been carried out in

past tourism research. Madrigal and Kahle (1994) used value system segments to predict vacation activity preferences among tourists to Scandinavia. Four mutually exclusive value system segments were identified. These segments reflected an enjoyment/ excitement or hedonic domain, an achievement domain an egocentric domain and a segment which did not favour any of the value domains. These segments were found to differ on activity preference. These authors also found that socio-demographic characteristics of the segments enriched the resulting tourist value profiles.

For the present study, in addition to the identification of common patterns in the values held by tourists, the cognition / emotion content and direction of these values were examined. It has been argued in Chapter 1 of the present study that the categorisation of values on the basis of their emotional or cognitive content and their inner or outer direction or locus of control permits the examination of what aspects in tourism are more substitutable. A two dimensional model was proposed as the basis for the examination of the emotion / cognition content of situated values and the inner or other direction of these values. This has important implications for tourism managers and marketers. Firstly, the targeted outcome of inner directed, emotional values is to reduce drive (the energiser for behaviour to satisfy needs). The reduction of drive leads to recall of the behaviour that led to satisfaction and the likelihood that a habit will be formed and the behaviour repeated. Therefore, if the emotion- dominant values of tourists are satisfied through the services and amenities available in a particular destination, the satisfaction of these values will increase the likelihood of repeat visits. Secondly, if the activities or objects in a particular destination which

invoke cognition-dominant values are identified and promoted, the satisfaction of these cognition dominant values will strengthen the attitudes of tourists that a particular destination is less substitutable. (Gnoth, 1997).

In the present analysis, the two groups of tourists, environmental and "other" tourists to both Scottish towns were each separately clustered using agglomerative hierarchical cluster analysis, using a non-parametric ($\chi 2$) linkage method and furthest neighbour distance measure as appropriate to the data, to identify subgroups of tourists who were similar in the tourism values that they held.

The two groups of tourists to both Scottish towns were found to nest into distinct clusters on their tourism values. The group of environmental tourists was found to nest into two distinct clusters on their tourism values, thereby identifying two subgroups of environmental tourists sharing similar tourism values (Fig 2). The group of "other" tourists was found to nest into four distinct clusters on their tourism values, thereby identifying four subgroups of "other" tourists sharing similar tourism values (Fig 3). Both clusterings nested but those of the "other" tourists nested more tightly, and, as can be seen from the rescaled distance on the dendograms (Figures 7 and 8), are more likely to be internally similar than those of the environmental tourists. The alternative of selecting a greater number of clusters for environmental tourists (for example, 6 clusters) would have led to many (4 out of 6) small clusters.

Each market segment derived for both environmental and "other" tourists was found to be distinct in terms of the tourism values held (Table 16). As environmental tourists

here have been shown to be distinct from "other" tourists, and each have been shown as internally distinct as two and four segments respectively, a six segment differentiation of the tourism market in St. Andrews and Pitlochry is appropriate.

Table 16 Tourism Values By Which The "Environmental Tourist" And "Other Tourist" Value Clusters Were Found To Be Distinct.

Tourism values	χ^2=	Significant at:	Cramer's V=	χ^2=	Significant at:	Cramer's V=
To relax and unwind, get back in touch with myself	25.03660	.00034	.32298	74.02863	.00000	.27740
No hassle	26.76651	.00034	.32298	74.02863	.00000	.32341
To spend quality time with friends and family	12.99935	.04305	.2327	234.38463	.00000	.49360
Fun	35.62323	.00000	.38527	212.62094	.00000	.47013
Excitement	37.73887	.00000	.39654	59.76373	.00000	.24925
To indulge myself	34.16264	.00001	.37729	18.54568	.00500	.13885
A safe place to holiday	64.89859	.00000	.52001	108.37882	.00000	.33565
Somewhere well known so that I can tell my friends	72.36020	.00000	.54909	32.05199	.00002	.18253
To learn about my own country	–	–	–	124.39493	.00000	.35960
To learn something interesting	N/A	N/A	N/A	54.26020	.00000	.23749
To be closer to nature	N/A	N/A	N/A	50.47110	.00000	.22905
Freedom in wide open spaces	N/A	N/A	N/A	66.00033	.00000	.26193

Note: Significance levels of χ^2 coefficients are shown where these are < 0.05

For the environmental tourist group, a two cluster solution was chosen as, due to the small number of cases used in the analysis (N=120) three, and four cluster solutions were found to contain very small segments, accounting for only 2.5% of the sample. The sizes of the two environmental tourist value clusters are shown in Table 17 and are described in Table 18. Only the values by which the clusters were distinctive are listed and values were only included in profiling if the χ^2 statistic was significant at < 0.05 across the clusters.

Table 17 Size Of The Tourism Value Clusters

Cluster	Dominant Values Orientation	Environmental Tourist Segments	
		N	%
Cluster 1	ENVIRONMENTAL HEDONIC / COGNITIVE	68	56.7
Cluster 2	ENVIRONMENTAL SOCIAL / EMOTIVE	52	43.3
	N =	120	100.0
		"Other" Tourist segments	
Cluster 3	HEDONIC / COGNITIVE INNER	156	32.4
Cluster 4	PERSONAL / EMOTIVE	201	42.0
Cluster 5	HEDONIC / COGNITIVE OUTER	68	14.1
Cluster 6	DE-EMPHASISERS	55	11.5
	N =	480	100.0

~ Summarily, in terms of their distinguishing mix of values, the two environmental clusters can be categorised as Environmental Hedonic /Cognitive and Environmental Social/Emotive. The hedonic segment includes the values: *fun*, *excitement* and *to indulge myself* with the cognition dominant values of : *somewhere well known so that I can tell my friends* and *a safe place to holiday*. The Social / Emotive segment includes the socially oriented, emotion dominant value of *to spend quality time with friends and family*. As such, the environmental tourist segments were found to be distinguishable in terms of the cognition / emotion content of their values as suggested by Gnoth (1997) discussed earlier in this study and the segments were also found to have distinct value domains; social and hedonic, as suggested by Madrigal and Kahle (1994).

Figure 7 Dendogram of "Other" Tourists Clustered by Their Values

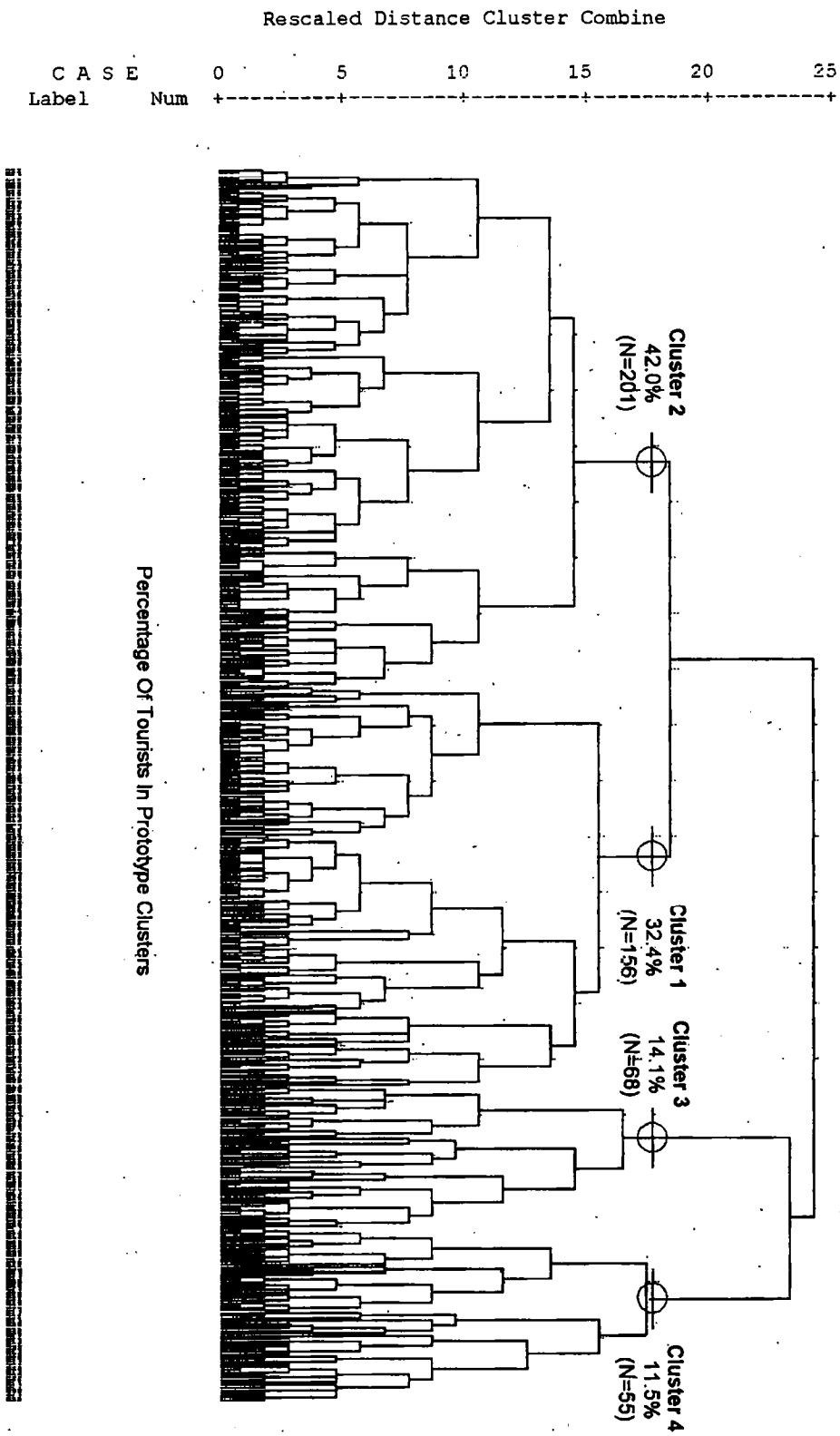


Figure 3 Dendogram of "Other" Tourists Clustered by Their Values

Figure 8 Dendogram of Environmental Tourists Clustered by Their Values

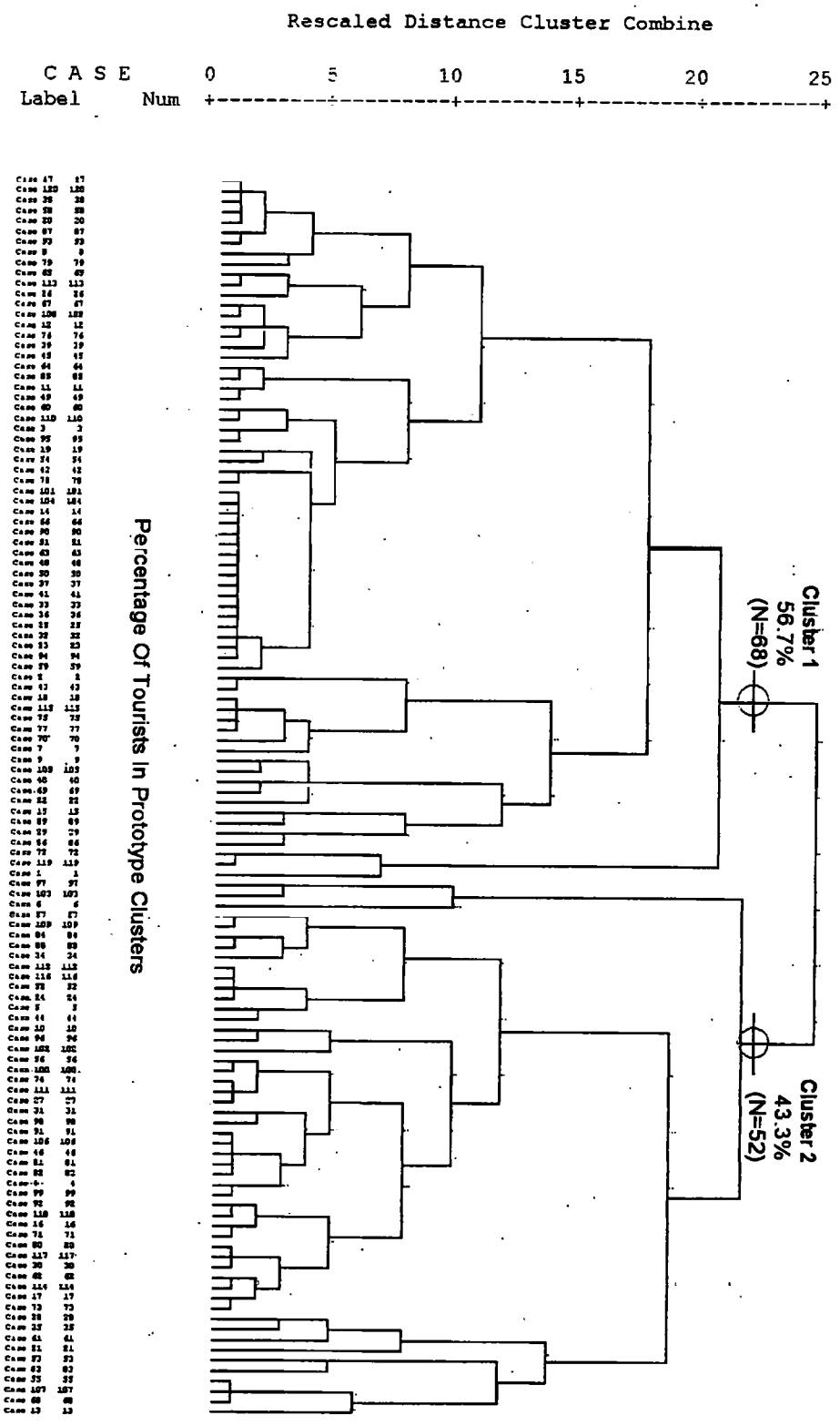


Figure 4 Dendogram of Environmental Tourists Clustered by Their Values

Table 18 Tourism Value Clusters For Environmental Tourists Summarily Described In Terms Of The Tourism Values From Which They Were Derived And Distinguishing Socio-Demographic Characteristics

Cluster	Distinguishing tourism values	Overall % for all environmental tourists	Distinguishing socio-demographic characteristics	Overall % for all environmental tourists
Cluster 1 56.7% N = 68	HEDONIC / COGNITIVE			
	(89.7%) rated Fun as very important	78.3	-	-
	(73.5%) rated Excitement as very important	55.0	-	-
	(57.4%) rated To indulge myself as very important	40.0	-	-
	(51.5%) rated Somewhere well known so that I can tell my friends as very important	31.7	-	-
	(76.5%) rated A safe place to holiday as very important	67.5	-	-
Cluster 2 43.3% N = 52	SOCIAL / EMOTIVE			
	(76.9%) rated To spend quality time with friends and family as very important	68.3	(51.9%) had child(ren) in their personal group	40.8

In particular, environmental tourist value Cluster 1 (Environmental Hedonic/Cognitive) was characterised by a disproportionate number of tourists who placed most importance on the hedonic values of *fun* (89.7%), *excitement* (73.5%) and to *indulge myself* (57.4%). In comparison 78.3% of the whole sample of environmental tourists rated *fun* as very important, 55.0% rated *excitement* as very important and 40.0% rated to *indulge myself* as very important. The cognition dominant values of *somewhere well known so that I can tell my friends* and *a safe place to holiday* were also very important to this segment (51.5% and 76.5% respectively). In comparison, only 31.7% of the whole sample of environmental tourists rated *somewhere well known so that I can tell my friends* as very important and 67.5% rated a *safe place to holiday* as very important. In contrast, environmental tourist value cluster 2 was characterised by a high importance placed on the social, emotion dominant value *to spend quality time with friends and family*, 76.9% rated this value as very important compared to 68.3% of the whole sample of environmental tourists.

For the "other" tourists group, a four cluster solution was chosen as it was found to have the most evenly distributed number of cases across the clusters and was deemed to be a manageable number of clusters for further analysis. Although Cluster 4 was found to contain a large number of cases (N=201) which accounted for 42% of the whole sample, it was not broken down at 5,6 and 7 cluster solutions. In addition it was found to be distinctive in terms of the values forming that cluster. The sizes of the four "other" tourist value clusters are shown in Table 17 and they are described in Table 19. Only the values by which the clusters were distinctive are listed and values were only included in profiling if the $\chi 2$ statistic was significant at < 0.05 across the clusters.

Summarily, in terms of their distinguishing mix of values, the four "other" tourist value clusters can be categorised as Hedonic/Cognitive Inner, Hedonic Cognitive Outer, Personal / Emotive and De-emphasisers. That two of the four clusters included a dominance of hedonic values such as *fun, excitement* and *to indulge myself* highlights the view that the emotional or cognition content of tourist values, as discussed in Chapter 1 of the present study are particularly important as holidaymaking is a pleasure seeking hedonic activity and thus particularly prone to emotional influences (Gnoth 1997). It is the mix of other values that distinguishes these two clusters.

Table 19 Tourism Value Clusters For "Other" Tourists Summarily Described In Terms Of The Tourism Values From Which They Were Derived And Distinguishing Socio-Demographic Characteristics

Cluster	Distinguishing tourism values	Overall % for all "other" tourists	Distinguishing Socio-demographic characteristics	Overall % for all "other" tourists
Cluster 3 32.4% N=156	HEDONIC / COGNITIVE INNER			
	(67.9%) rated **Fun** as very important	55.7	(50.7%) aged between 16 - 30	36.3
	(28.2%) rated **Excitement** as very important	20.4	(5.1%) students	3.5
	(33.3%) rated **To learn something interesting** as very important	26.4		
Cluster 4 42.0% N=201	PERSONAL / EMOTIVE			
	(85.6%) rated **No hassle** as very important	63.6	(50.5%) had child(ren) in their personal group	40.5
	(77.2%) rated **To relax and unwind** as very important	60.9		
	(69.8%) rated **To spend quality time with friends and family** as very important	54.3		
	(60.9%) rated **Freedom in wide open spaces** as very important	44.5		
	(31.2%) rated **To be closer to nature** as very important	20.8		
	(68.3%) rated **A safe place to holiday** as very important	44.3		
Cluster 5 14.1% N=68	HEDONIC / COGNITIVE OUTER			
	(67.6%) rated **Fun** as very important	55.7	(79.4%) had NO child(ren) in their personal group	59.5%
	(29.4%) rated **Excitement** as very important	20.4	(17.6%) were employed in professional occupations	9.8%
	(38.2%) rated **To indulge myself** as very important	26.6		
	(44.1%) rated **To learn about my own country** as very important	24.7		
	(22.1%) rated **Somewhere well known so that I can tell my friends** as very important	11.0		
Cluster 6 11.4% N=55	DE-EMPHASISERS			
	(0%) rated **Fun** as very important	55.7	(67.3%) male	46.6
	Only (7.3%) rated **Excitement** as very important	20.4	(34.6%) were aged 60 or over	12.3
	Only (3.6%) rated **To learn something interesting** as very important	26.4	81.8% had NO child(ren) in their personal group	59.5

In particular, Cluster 3 (Hedonic/Cognitive Inner) was characterised by a disproportionate number of tourists who rated the hedonic values of *fun* (67.9%) and *excitement* (28.2%) as very important. In comparison, 55.7% of the whole sample of "other" tourists rated *fun* as very important and 20.4% rated *excitement* as very important. The high importance placed on the cognition dominant value of *to learn something interesting* (33.3%) is the value that distinguishes this segment. This is an

inner directed value reflecting a need for a sense of accomplishment and as such de emphasises the role of other people or external influences in value fulfilment for this segment.

Similarly, Cluster 5 (Hedonic/Cognitive Outer)was also characterised by a disproportionate number of tourists who rated the hedonic values of *fun* (67.6%) and *excitement* (29.4%) and *to indulge myself* (44.1%) as very important. This segment is distinctive, however, in terms of the outer direction of the other important values included; *to learn about my own country* (44.1%) and *somewhere well known so that I can tell my friends* (22.1%) were very important to this segment. In comparison, only 11.0% of the whole sample of "other" tourists rated *somewhere well known* as very important and 24.7% rated *to learn about my own country* as very important. The outer direction of these cognition dominant values reflects a need for social recognition and a sense of belonging, thus emphasising the importance of external influences and people in the value fulfilment of this segment.

Cluster 4 (Personal / Emotive) was found to be characterised by the high level of importance placed on emotion dominant values, with a strong emphasis on the role of other people and external influences in the value fulfilment of this segment. This was the only segment of the four to place high importance on *spending quality time with friends and family* (69.8% compared with 54.3% of the whole sample of "other" tourists). This segment also placed high importance on two of the three "environmental" values: *to be closer to nature* (31.2%) and *freedom in wide open spaces* (60.9%). In comparison, 20.8% of the whole sample of "other" tourists rated

to be closer to nature as very important, and 44.5% rated *freedom in wide open spaces* as very important. In contrast to Cluster 3 and Cluster 5, education and learning values were not rated as important to this segment.

In contrast to the other three clusters, Cluster 6 (De-emphasisers) did not place any great importance on any of the tourist values. Rather, they were distinguishable by the de-emphasis that they put on values, in particular the hedonic values of *fun* and *excitement* and the knowledge value of *to learn something interesting*. Of the tourists in this cluster none rated the value of *fun* as very important and only 7.3% rated *excitement* as very important, compared with 55.7% and 20.4% of all "other" tourists respectively. Similarly of the tourists in this cluster, only 3.6% rated *to learn something interesting* as very important compared with 26.4% of all "other" tourists. Madrigal and Kahle (1994) in their study of tourist values also found one of their four segments to be similarly distinguishable only by its de-emphasis on importance of values.

The four "other" tourist value clusters were found to be partly distinguishable by socio-demographic characteristics although these differences were slight as indicated by the weak Cramer's V strength of association coefficients (Table 20).

In particular, the presence of child(ren) in the personal group (Cramer's V = .23718) may explain the importance of the value *To spend quality time with friends and family* to Cluster 4, the only cluster to emphasise this value. Of this segment, 50.5% had child(ren) with them.

Table 20 Crosstabulation Of The Socio-Demographic Characteristics Of Environmental And "Other" Tourists By Tourism Value Clusters

Socio-demographic Characteristics	Significant Differences Between The Groups					
	Environmental Tourist Segments			Other Tourist Segments		
	$\chi 2$=	Sig. at:	Cramer's V=	$\chi 2$=	Sig. at:	Cramer's V=
Gender	–	–	–	12.52382	.00579	.16136
Age	–	–	–	81.17754	.00000	.23718
Presence of children in personal group	4.7118	.03067	.19730	31.82162	.00000	.25721
Educational attainments	–	–	–	-	-	-
Social Class	–	–	–	29.37806	.04395	.14269

Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

Additionally the De-emphasisers segment (Cluster 6) was characterised by a disproportionate number of older, male (67.3%) tourists, 34.6% of this cluster was aged 60 years or above compared with 12.3% of the whole sample.

Summary

This chapter has presented a categorisation of tourists to Scotland based on the strength of their environmental values in a tourism context. As environmental tourists here have been shown to be distinct from "other" tourists, and each have been shown as internally distinct as two and four segments respectively, a six segment differentiation of the tourism market in St. Andrews and Pitlochry is appropriate.

The two dimensional model proposed in Chapter 2, has been used as the basis for the examination of the emotion / cognition content of the situated values held by each of the six segments identified, and the inner or other direction of these values. The examination of the emotion/ cognition content of the six segments indicated that, with the exception of Cluster 6 (De-emphasisers), emotional values were common to all of

the segments. In addition, all of the segments, (with the exception of Cluster 6 (De-emphasisers) were found to have either social or hedonic oriented value domains, as suggested by Madrigal and Kahle, (1994). This is not unexpected given that holidaymaking is a pleasure seeking activity and thus particularly prone to emotional influences (Gnoth, 1997). However, the internal distinctions between the two environmental and four "other" tourist value clusters are most readily identifiable according to the importance placed on their distinguishing mix and direction of other values. The identification of the emotion / cognition content of the values of tourist segments has important implications for tourism managers. If the satisfaction of emotion dominant inner directed values is achieved by fulfilling an outcome such as the need to relax and unwind or to feel free in wide open spaces then classes of objects such as destinations, services or experiences which may satisfy these values can be chosen and are readily substitutable. Where these tourism value systems have a cognition dominant or outer directed component, satisfaction and fulfilment is through more specific objects or processes which are not so readily substitutable. The responsibility of tourism managers and marketers therefore is to ensure that the emotion dominant values of tourists are satisfied through the services and amenities available in a particular destination, the satisfaction of these values will increase the likelihood of repeat visiting behaviour. The identification and promotion of the activities or objects in a particular environment which invoke cognition dominant values can help to confirm this satisfaction and strengthen the attitudes of an individual that a particular destination is less substitutable.

CHAPTER 6

ENVIRONMENTAL AND "OTHER" TOURISTS: DESTINATION ATTRIBUTE PREFERENCES IN ST. ANDREWS AND PITLOCHRY

Ecotourists And Destination Attributes

Evidence collected in past studies seeking to identify the attributes that attract ecotourists or nature based tourists to particular destinations suggests that there are significant differences in the attributes that attract these tourists compared with other tourists to the same destination. For example, Kretchman and Eagle's (1990) study of Canadian nature based tourists analysed the importance to ecotourists of particular destination attractions. They found that there were significant differences between the general Canadian traveller and ecotourists. Destination attractions such as warm weather, predictable climate, a good place for amusement / themeparks, shopping and big city attractions were ranked high on the general travellers priority list, but were less important to ecotourists. For ecotourists, as would be expected, nature oriented attractions such as wilderness and areas of undisturbed nature, flora and fauna, lakes, streams and oceansides and rural areas were identified as being of major importance. Also, unlike general tourists, ecotourists were not particularly attracted by a familiar environment or somewhere which they had visited before; rather, they were more concerned with remoteness of the destination and a pristine environment as important attributes (Johnston 1990).

Wight (1996a, 1996b) in her profile of North American ecotourists found that, when compared to general tourists, ratings for most important attributes for a destination were very similar. As might be expected for ecotourists, a wilderness setting was most important followed by a good place to view wildlife, a good place for walking / hiking and visiting a national park or other protected area. For general tourists a good place

for casual walking was most important, followed by a good place to view wildlife, a place to learn about other cultures, visiting a national park or protected area and a wilderness setting.

Nature Based Tourists And Attributes Of Scotland As A Holiday Destination

As previously commented on in Chapter 2, Scotland is renowned for its diversity of landscapes, rugged coastline, mountain scenery, agricultural land and over 30,000 freshwater lochs. Over an eighth of its land area is contained within designated scenic areas (STB, 1998c). Scotland is also home to much wildlife, birdlife and important flora and fauna habitats partly due to its climate, terrain and location on the outer fringe of Europe. With many geographical assets and built heritage assets the environment is recognised as Scotland's main tourism resource.

Given the attributes previously discussed earlier that are most important to ecotourists or nature based tourists, Scotland as a holiday destination has many attributes potentially attractive to this market segment and others. The Scottish Tourism Co-ordinating Group (STCG, 1993) found that domestic tourists generally visited Scotland primarily for the scenery (71%), the natural wildlife (35%), the peace and quiet(59%) and as a good place to visit sites of historic and ecclesiastical interest (40%). However, the importance of these attributes to specifically ecotourists or environmental tourists has not yet been reported.

For the present study, the importance of particular destination attributes to environmental tourists and "other" tourists to Scotland will firstly be examined at aggregate level, exploring the destination attributes which were important to these two groups overall, and will then be examined by segments, to identify internal distinctions between the environmental tourist and "other" tourist segments.

Analysis of the attributes which attracted both "other" tourists and "environmental" tourists to choose the two Scottish towns as a holiday destination shows extensive but generally weak differences between the attributes rated as most important to both groups of tourists as indicated by the Cramer's V strength of association coefficients (Table 21).

Table 21 Importance Of Destination Attributes For Environmental And "Other" Tourists To Scotland

Destination Attribute	"Other" Tourists		"Environmental" Tourists		χ^2 Statistics		
	Otherwise Important	Very Important	Otherwise Important	Very Important	χ^2 =	Sig. at:	Cramer's V =
I wanted to be by the waterside (Coast / River)	60.5	39.5	49.2	50.8	9.06611	.01075	.12282
The waterside (beach / riverbank) is clean	53.2	46.8	47.5	52.5	–	–	–
The ease of access from home	66.9	33.1	56.7	43.3	–	–	–
The quietness	69.0	31.0	43.3	56.7	28.39126	.00000	.21735
The unique natural attributes of the area (sandy beach / Mountains)	61.1	38.9	41.7	58.3	14.86518	.00059	.15727
Different style of local buildings	85.9	14.1	71.7	28.3	17.63779	.00015	.17131
The area is good for children	62.7	37.3	52.5	47.5	6.03623	.04889	.10030
I liked it when I have been before	60.7	39.3	46.7	53.3	13.14350	.00140	.14788
The attractive, natural setting	54.1	45.9	16.7	83.3	54.98244	.00000	.30246
The open spaces	54.7	45.3	16.7	83.3	55.97278	.00000	.30518
The area is good for walks	60.9	39.1	22.5	77.5	57.89288	.00000	.31037
Place with unique Scottish Monuments	71.5	28.5	52.5	47.5	17.45541	.00016	.17042
A good base for touring the area	51.8	48.2	35.0	65.0	11.04070	.00400	.13554

Note: Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

The strongest effects were found for the attributes *the open spaces* (Cramer's V=.30518), *the area is good for walks* (Cramer's V=.31037), *the attractive, natural setting* (Cramer's V=.30246) and *the quietness* (Cramer's V=.21735). All four of these attributes were found to be more important to the group of environmental tourists than to the group of "other" tourists. Of all those people in the environmental tourist group, 83.3% rated *the open spaces* as very important compared with only 45.3% of "other" tourists. Of all those people in the "environmental" tourist group, 77.5% rated the attribute *the area is good for walks* as very important, compared with 39.1% of "other" tourists. Similarly, 83.3% of the environmental tourist group rated *the attractive, natural setting* as very important, compared with 45.9% of "other" tourists. The destination attribute of *quietness* was also very important to 56.7% of the environmental tourist group, compared with 31.0% of "other" tourists. The differences found between environmental tourists and "other" tourists here are much greater than those noted by Wight (1996b). This is because in the United States, outdoor recreation is essentially of a wilderness focus, generally; in contrast, in the United Kingdom car access to "remote" landscape or "wilderness" locations is much easier.

These more strongly associated attributes with environmental tourists support findings evidenced elsewhere in the literature. In common with Kretchman and Eagles (1990), Johnston (1990), Silverberg et al (1996) and Wight (1996a, 1996b), the attractive natural setting is clearly of great importance to this segment. However, it has also been noted that the setting is also critical to many other types of travellers, for example, travellers to urban or resort destinations (Wight 1996a,b). Therefore, it is the other

three attributes associated with the environmental tourists for the present study that distinguish them from "other" tourists more strongly and are consistent with findings of past research. The importance of the quietness and open spaces of a destination is found elsewhere in the literature as remoteness or an uncrowded place (Johnston 1990; Crossley and Lee 1994).

Wight (1996b) found that a good place for walks was of prime importance to ecotourists in common with the importance placed on this destination attribute by the environmental tourists in the present study. However, Wight (1996b) did make a distinction between casual walking and hiking or trekking which was not made distinct for the present study.

The strong, positive association found earlier between the environmental tourist group and the attributes: *The area is good for walks, the attractive, natural setting, the quietness* and *the open spaces* concurs with the findings of past research that tourists who hold environmentally oriented values are likely to bring these values into play when selecting a holiday destination. The environmental values of *freedom in wide open spaces, to be closer to nature* and *to learn something interesting*, which differentiate environmental tourists from "other" tourists, are consistent with the attributes which are cited as most important by environmental tourists. For example, the expressed importance of *an attractive natural setting* can be considered as the destination attribute sought to fulfil the underlying value *to be closer to nature*. Similarly, the destination attribute *the open spaces*, can be considered as the destination attribute sought to fulfil the value *freedom in wide open spaces.*

Tourism Value Clusters And Destination Attributes

The analysis in this chapter has shown that some differences do exist between the destination attributes sought by the group of environmental tourists and the destination attributes sought by "other" tourists. As previously discussed, differences in destination attributes for ecotourists and general tourists are also evidenced elsewhere in the literature. However, it is not clear from this analysis whether the personal tourism values held by these tourists affect their choice of holiday destination.

Past tourism research examining the effect of personal values and destination choice suggests that values do indeed have an effect on selection of a holiday destination. Muller (1991) in his study of tourists to metropolitan Toronto found that four market segments existed which were distinct in terms of personal values and that these values were reflected in the attributes by which consumers evaluate an alternative destination. For example, the market segment which placed most importance on the values of security and a sense of belonging was likely to attach high importance to the destination attributes related to safety and security. The segment which placed most importance on the values of fun and excitement was more likely to place most importance on destination attributes such as a wide variety of bars and night-clubs, funfairs and themeparks. Similarly, Pitts and Woodside (1986) in their study of personal values and travel decisions found that values were found to be significantly related to differences in destination choice criteria. The personal value approach to market segmentation then would suggest that values do have some affect on holiday decision making. However, the association between the cognition and emotion

content of personal values and destination attributes has not yet been addressed in tourism research.

As discussed in Chapter 1, the satisfaction of emotion dominant values is achieved by fulfilling an outcome, such as the need to relax and unwind. Classes of objects such as destinations, attributes or services that can satisfy these values can be chosen and are readily substitutable. In contrast, cognition dominant values are fulfilled through more specific objects or processes which are not so easily substitutable. The unique selling point of destinations are likely to be more associated with the cognition dominant values of actual and potential tourists. As such, the configuration of personal values held by differing market segments and the attributes of Scotland as a holiday destination to which they attach the most importance is of interest to the present study, and needs to form part of the analysis for the present study. In this way, the particular destination attributes which invoke cognition dominant or emotion dominant values may be identified and promoted by tourism managers and marketers.

In the previous chapter a segmentation of the categorisation of tourists by their tourism values was presented. The two groups of "environmental" tourists and "other" tourists were disaggregated into distinct clusters on the basis of their tourism values, 2 different market segments of "environmental" tourists and 4 different market segments of "other" tourists sharing similar values were identified, creating a six segment differentiation of the tourism market in St. Andrews and Pitlochry. This was used to examine the association between the cognition or emotion dominance of the personal

values held by each segment and the destination attributes that were considered most important.

For the two "environmental" tourist value clusters derived (Environmental Hedonic / Cognitive and Environmental Social / Emotive), the clusters were not found to be distinguishable in terms of destination attributes (Table 22).

The four "other" tourist value clusters derived were found to be partly distinguishable by destination attributes although most of the differences found were not strong as indicated by the weak Cramer's V strength of association coefficients (Table 22).

Table 22 Destination Attributes Most Important To The Environmental And "Other" Tourism Value Clusters

Attributes	"Environmental" Tourist Segments			"Other" Tourist Segments		
	$\chi 2$=	Sig. at:	Cramer's V	$\chi 2$=	Significant at:	Cramer's V
I wanted to be by the waterside (Coast / River)	–	–	–	–	–	–
The ease of access from home	–	–	–	28.82196	.00007	.17309
The quietness	–	–	–	58.09342	.00000	.24574
The natural attributes of the area (sandy beach / Mountains)	–	–	–	25.24878	.00031	.16201
The waterside (beach / riverbank) is clean	–	–	–	–	–	–
The area is good for children	–	–	–	66.48966	.00000	.26317
I liked it when I have been before	–	–	–	43.46310	.00000	.21256
The attractive, natural setting	–	–	–	39.53996	.00000	.20274
The open spaces	–	–	–	40.44106	.00000	.20503
The area is good for walks	–	–	–	20.43882	.00231	.14576
A good base for touring the area	–	–	–	–	–	–

Note: Destination attributes and significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

However, some stronger effects were found which render the four "other" tourist value segments more explainable in terms of predicting the importance placed on particular destination attributes (Table 23).

As might be expected, tourists in Cluster 4 (Personal / Emotive) were found to be distinguishable in terms of their most important attributes being related to personal and family values and socio-demographic characteristics. The most important and distinctive values to this cluster are reflected in the importance placed on its distinctive destination attributes. The value of *no hassle* may be seen to reflect the attribute *ease of access from home* and *I liked it when I have been before*. Of the tourists in this cluster, 41.1% rated *no hassle* as very important and 52.5% rated *I liked it when I have been before* as very important, compared with 31.4% and 38.2% of the overall sample of "other" tourists respectively. Similarly, other important values to this cluster such as *to relax and unwind*, *freedom in wide open spaces* and *to be closer to nature* are consistent with the important attributes of : *open spaces* (61.9% compared with 45.3% of the overall sample of "other" tourists); *attractive, natural setting* (60.4% compared with 45.9% of the overall sample of "other" tourists); *natural attributes of the area (sandy beach or mountains)* (49.5% compared with 38.9% of the overall sample of "other" tourists), *quietness* (44.1% compared with 31.0% of the overall sample of "other" tourists) and that *the area is good for walks* (48.0% compared with 39.1% of the overall sample of "other" tourists). For this segment, the motivation to visit for relaxation may be fulfilled by the quiet, open, attractive natural setting which is also perceived as a safe place to holiday with the family by these tourists. Disproportionately more of the tourists in this segment had children with them on their holiday, 50.5% compared with 40.5% of the overall sample of "other" tourists.

Table 23 Tourism Value Clusters Summarily Described In Terms Of Their Dominant Tourism Values, Destination Attributes And Distinguishing Socio-Demographic Characteristics

Environmental tourist clusters	Distinguishing tourism values	Distinguishing Destination Attributes	Overall % for environmental tourists	Distinguishing Socio-demographic characteristics
Cluster 1 56.7% N=68	HEDONIC / COGNITIVE	-	-	-
Cluster 2 43.3% N=52	SOCIAL / EMOTIVE	-	-	Parents with children in their personal group
"Other" tourist Clusters	**Distinguishing tourism values**	**Distinguishing Destination Attributes**	**Overall % for "other" tourists**	**Distinguishing Socio-demographic characteristics**
Cluster 3 32.4% N= 156	HEDONIC / COGNITIVE INNER	(38.1%) rated **The ease of access from homes** as very important	31.4	Younger, students
Cluster 4 42.0% N=201	PERSONAL / EMOTIVE	(51.5%) rated **The area is good for children** as very important	37.3	Parents with children in their personal group
		(61.9%) rated **The open spaces** as very important	45.3	
		(60.4%) rated **The attractive, natural setting** as very important	45.9	
		(48.0%) rated **The area is good for walks** as very important	39.1	
		(41.1%) rated **The ease of access from home** as very important	31.4	
		(44.1%) rated **The quietness** as very important	31.0	
		((49.5%) rated **The natural attributes of the area (Beach/mountains)** as very important	38.9	
		(52.5%) rated **I liked it when I have been before** as very important	38.2	
Cluster 5 14.1% N=68	HEDONIC / COGNITIVE OUTER	(39.7%) rated **A place with unique historical monuments** as very important	28.5	Professional, no children in their personal group
		(42.6%) rated **The area is good for walks** as very important	39.1	
		(51.5%) rated **The attractive, natural setting** as very important	45.9	
Cluster 6 11.4% N=55	DE-EMPHASISERS	(50.5%) rated **I liked it when I have been before** as very important	38.2	Older, male

Cluster 3, for whom the hedonic values of *fun* and *excitement* were very important, placed the most importance on the unrelated attribute of *ease of access from home*. Of the tourists in this cluster, 38.1% rated ease of access as very important compared to 31.4% of the overall sample of "other" tourists. This may be due to the young age and student status of the tourists in this group, domestic holidays perhaps being more financially viable.

In contrast, Cluster 5, which also emphasised hedonic values, placed most importance on attributes that reflected their motivating values: *To learn about my own country* and *to visit Somewhere well known so I can tell my friends*. Of the tourists in this segment, 39.7% rated *a place with unique historical monuments* as very important, compared with 28.5% of the overall sample of "other" tourists. For this segment, fun, excitement and indulgence may be fulfilled by *the attractive, natural setting*; 51/5% rated this attribute as very important compared with 45.9% of the overall sample of "other" tourists.

The De-emphasisers, (Cluster 6) was not distinguishable in terms of tourism values but was found to be distinctive in terms of one destination attribute, namely, *I liked it when I have been before*. Of all the tourists in this cluster 50.5% rated this attribute as very important compared with 38.2% of the overall sample of "other" tourists.

Tourism Value Clusters And Destination Attributes In St. Andrews

The analysis in this chapter has indicated that the destination attributes that are most important to the different segments are in accordance with their tourism values. The tourism value segments presented previously, however, do not take into account the attributes of each town that are most important to the distinct segments when evaluating alternative holiday destinations. The analysis needs, therefore, to be undertaken by place of interview to see how far, if at all, the attributes mentioned were place contingent.

Analysis of the destination attributes that were most important to environmental tourists visiting St. Andrews indicates that the two "environmental" tourist clusters derived (Environmental Hedonic / Cognitive) and (Environmental Social / Emotive) were not found to be distinguishable in terms of destination attributes in St. Andrews (Table 24).

The four "other" tourist value clusters derived were found to be partly distinguishable by destination attributes. The effects found were extensive and individually strong as indicated by the Cramer's V strength of association coefficients (Table 24). The tourism value clusters for tourists to St. Andrews are summarily described in terms of their distinguishing destination attributes in Table 25.

Table 24 Effects Of Place On The Importance Placed On Destination Attributes In St. Andrews By The Environmental And "Other" Tourism Value Clusters.

Attributes	"Environmental" Tourist Segments			"Other" Tourist Segments		
	$\chi 2$=	Sig. at:	Cramer's V	$\chi 2$=	Significant at:	Cramer's V
I wanted to be by the Coast	–	–	–	13.56726	.03486	.16247
The ease of access from home	–	–	–	–	–	–
The quietness	–	–	–	39.35969	.00000	.27672
The natural attributes of the area (sandy beach)	–	–	–	29.70156	.00004	.24039
The beach is clean	–	–	–	25.76357	.00025	.22388
The area is good for children	–	–	–	54.12034	.00000	.32449
I liked it when I have been before	–	–	–	–	–	–
The attractive, natural setting	–	–	–	21.70368	.00137	.20549
The open spaces	–	–	–	17.11619	.00887	.18248
The area is good for walks	–	–	–	–	–	–
A good base for touring the area	–	–	–	–	–	–

Note: Destination attributes and significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

Table 25 Tourism Value Clusters Summarily Described In Terms Of Their Distinguishing Destination Attributes, Dominant Tourism Values And Socio-Demographic Characteristics When Visiting St. Andrews

Environmental tourists Clusters	Dominant tourism values	Distinguishing Destination Attributes	Overall % for environmental tourists to St. Andrews	Distinguishing Socio-demographic characteristics
Cluster 1 51.9% N=40	HEDONIC / COGNITIVE	-	-	-
Cluster 2 48.1% N=37	SOCIAL / EMOTIVE	-	-	Parents with children in their personal group
"Other" tourist Clusters	Dominant tourism values	Distinguishing Destination Attributes	Overall % for "other" tourists to St. Andrews	Distinguishing Socio-demographic characteristics
Cluster 3 35.4% N= 91	HEDONIC / COGNITIVE INNER		31.4	Young, Students
Cluster 4 37.7% N=97	PERSONAL / EMOTIVE	(58.8%) rated The area is good for children as very important	40.1	Parents with children in their personal group
		(50.5%) rated The open spaces as very important	35.0	
		(49.5%) rated The attractive, natural setting as very important	35.4	
		(37.1%) rated The quietness as very important	23.3	
		(68.0%) rated The beach is clean as very important	54.9	
		(55.7%) rated I wanted to be by the coast as very important	46.7	
		(60.8%) rated The sandy beach as very important	45.5	
Cluster 5 16.0% N=41	HEDONIC /COGNITIVE OUTER	(41.5%) rated The attractive, natural setting as very important	35.4	Professional, No children in their personal group
Cluster 6 10.9% N=28	DE-EMPHASISERS	-	-	Older, Male

As might be expected, tourists in Cluster 4 (Personal / Emotive) were found to be distinguishable in terms of their most important attributes being related to personal and family values in St. Andrews. The most important values to this cluster are reflected in the importance placed on destination attributes in St. Andrews.

Important values to this cluster such as *to relax and unwind, freedom in wide open spaces,* and *to be closer to nature* are consistent with the important attributes of *the open spaces, the attractive natural setting* and *the quietness*. Of the tourists in this cluster, 50.5% rated *the open spaces* as very important, compared with 35.0% of all "other" tourists to St. Andrews. Of the tourists in this cluster, 49.5% *rated the*

attractive, natural setting as very important, compared with 35.4% of all "other" tourists to St. Andrews. Of the tourists in this cluster, 37.1% rated *the quietness* as very important, compared with 23.3% of all "other" tourists to St. Andrews.

Also important to this group and reflected in their important values, are the site specific attributes; *the sandy beach, I wanted to be by the coast*, and *the beach is clean*. Of the tourists in this cluster, 68.0% rated *the beach is clean* as very important, compared with 54.9% of all "other" tourists to St. Andrews. Of all the tourists in this cluster, 60.8% rated *the sandy beach* as very important, compared with 45.5% of all "other" tourists to St. Andrews, and 55.7% rated *I wanted to be by the coast* as very important, compared with 46.7% of all "other" tourists to St. Andrews. For this segment, the motivation to visit St. Andrews for relaxation may be fulfilled by the quiet attractive natural setting of the sandy beach and coast which is also perceived as a clean, safe place to holiday with the family by these tourists. Disproportionately more of the tourists in this segment had children with them on their holiday, 50.5% compared with 40.5% of all "other" tourists.

Cluster 5 which emphasised hedonic values was distinguishable by the importance placed on the attribute, *the attractive, natural setting*; 41.5% rated this attribute as very important compared with 35.4% of other respondents.

Cluster 3 (Hedonic / Cognition Inner) and Cluster 6 (De-emphasisers) were not distinguishable in terms of destination attributes.

Tourism Value Clusters And Destination Attributes In Pitlochry

As was the case for the environmental value clusters for St. Andrews and for the towns combined, for the two "environmental" clusters derived for tourists to Pitlochry (Environmental Hedonic / Cognitive) and (Environmental Social / Emotive), there were no differences found to exist between the two clusters in terms of the destination attributes of Pitlochry (Table 26).

For the four "other" tourist value clusters extensive differences were found to exist between the clusters, these effects were found to be quite strong as indicated by the Cramer's V strength of association coefficients (Table 26).

Table 26 Effects Of Place On The Importance Placed On Destination Attributes In Pitlochry By The Environmental And "Other" Tourism Value Clusters

Attributes	"Environmental" Tourist Segments			"Other" Tourist Segments		
	$\chi 2$=	Sig. at:	Cramer's V=	$\chi 2$=	Sig. at:	Cramer's V=
I wanted to be by the riverside	–	–	–	–	–	–
The ease of access from home	–	–	–	–	–	–
The quietness	–	–	–	21.31667	.00161	.21813
The natural attributes of the area (mountains)	–	–	–	–	–	–
The riverbank is clean	–	–	–	–	–	–
The area is good for children	–	–	–	19.05581	.00407	.20670
I liked it when I have been before	–	–	–	12.82381	.04592	.16919
The attractive, natural setting	–	–	–	21.27734	.00164	.21793
The open spaces	–	–	–	22.10654	.00116	.22214
The area is good for walks	–	–	–	20.18904	.00256	.21228
A good base for touring the area	–	–	–	–	–	–
The Different type of local buildings	–	–	–	–	–	–

Note: Destination attributes and significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

The tourism value clusters for tourists to Pitlochry are summarily described in terms of their distinguishing destination attributes in Table 27.

As with Cluster 4 of "other" tourists to St. Andrews, Cluster 4 of tourists to Pitlochry was found to have the most extensive range of distinguishing destination attributes. However, in contrast with Cluster 4 tourists to St. Andrews, site specific attributes such as *the mountains*, *I wanted to be by the riverside* and *the riverside is clean* were not named by this cluster as being of great importance. Most important attributes to this cluster were related to *the attractive, natural setting* of Pitlochry (Cramer's V=.21793), *the open spaces* (Cramer's V=.22214), and *the quietness* (Cramer's V=.21813). Of the tourists in Cluster 2, 70.5% rated *the attractive, natural setting* as very important, compared with 58.0% of all "other" tourists to Pitlochry. Similarly, 72.4% rated *the open spaces* as very important, compared with 57.1% of all "other" tourists to Pitlochry. Of the tourists in Cluster 2, 50.5% rated *the quietness* as very important, compared with 39.7% of all "other" tourists to Pitlochry. For Cluster 4 (Personal/Emotive) of "other" tourists to Pitlochry, the importance of the attributes related to the natural environment of Pitlochry were associated with the presence of children in the group, as was the case for Cluster 4 (Personal/Emotive) of "other" tourists to St. Andrews. For Cluster 4, the natural environment of Pitlochry is a considered a familiar place that is a good place to bring children; 51.4% of the tourists in this cluster rated *I liked it when I have been before* as very important, compared with 40.6% of all "other" tourists to Pitlochry. Of the tourists in this cluster 44.8% rated *the area is good for children* as very important, compared with 34.1% of all "other" tourists to Pitlochry. This might be expected as Cluster 4 is characterised by a

disproportionately high number of tourists who had children with them on their holiday (50.5% compared with 40.5% of all "other" tourists).

Table 27 Tourism Value Clusters Summarily Described In Terms Of Their Distinguishing Destination Attributes, Dominant Tourism Values And Socio-Demographic Characteristics When Visiting Pitlochry

Environmental Clusters	Dominant tourism values	Distinguishing Destination Attributes	Overall % for environmental tourists to Pitlochry	Distinguishing Socio-demographic characteristics
Cluster 1 65.1% N=28	HEDONIC / COGNITIVE	-	-	-
Cluster 2 34.9% N=15	SOCIAL / EMOTIVE	-	-	Parents with children in their personal group
"Other" Clusters	**Dominant tourism values**	**Distinguishing Destination Attributes**	**Overall % for "other" tourists to Pitlochry**	**Distinguishing Socio-demographic characteristics**
Cluster 3 29.0% N= 65	HEDONIC / COGNITIVE INNER		31.4	Young, Students
Cluster 4 46.9% N=105	PERSONAL / EMOTIVE	(44.8%) rated The area is good for children as very important	34.1	Parents with children in their personal group
		(72.4%) rated The open spaces as very important	57.1	
		(70.5%) rated The attractive, natural setting as very important	58.0	
		(50.5 %) rated The quietness as very important	39.7	
		(51.4%) rated I liked it when I have been before as very important	40.6	
Cluster 5 12.1% N=27	HEDONIC /COGNITIVE OUTER	(41.5%) rated The attractive, natural setting as very important	35.4	Professional, No children in their personal group
		(70.4%) rated The area is good for walks as very important	54.5	
Cluster 6 12.1% N=27	DE-EMPHASISERS	(48.4%) rated I liked it when I have been before as very important	40.6	Older, Male

Similarly, Cluster 5 (Hedonic / Cognitive Outer) was characterised by an emphasis on the natural environment of Pitlochry. Of the tourists in this cluster, 66.7% rated the attractive natural environment as very important, compared with 58.0% of all "other" tourists to Pitlochry. The area is good for walks was the most important distinguishing attribute for this cluster. Of the respondents in this cluster, 70.4% rated the area is

good for walks, compared with 54.5% of all "other" tourists to Pitlochry. For this cluster the natural environment is seen to facilitate the activity of walking, fulfilling this group's tourism values of learning, having fun and indulging themselves.

Cluster 6 (De-emphasisers) of "other" tourists to Pitlochry was found to be distinctive by the importance placed on the destination attribute *I liked it when I have been before*. Of the tourists in this cluster, 48.4% rated this attribute as very important compared with 40.6% of all "other" tourists to Pitlochry. This is likely a function of the older age of the tourists in this cluster, the majority aged over 60 years, who may be set in their ways and unwilling to try new destinations.

In examining the effect of place on the importance of destination attributes, some key differences between the otherwise similar tourism value segments were highlighted. For the Personal/Emotive Cluster 4, *the attractive natural setting*, *quietness* and *open spaces* were important to tourists to both towns. However, for these tourists to St. Andrews, the coastal location and related coastal attributes: *the beach is clean*, *the sandy beach, I wanted to be by the coast* were particularly important. This was not found to be the case for the river location and related attributes in Pitlochry. For tourists in Cluster 4 visiting Pitlochry, familiarity and liking for the place based on previous visit(s) was found to be a distinguishing attribute. This attribute was also found to distinguish Cluster 6 tourists (De-emphasisers)to Pitlochry. Having liked the town when visiting previously was not mentioned as important by tourists to St. Andrews.

The preceding analysis suggests that the destination attributes that were most important to the distinct segments were, to some extent, generic across both towns. Some key differences were found for the tourists in segment 4 (Personal/Emotive) who placed greater importance on the "natural attributes" of St. Andrews than they did in Pitlochry. To this segment of tourists to St. Andrews, *I wanted to be by the coast, the sandy beach* and *the beach is clean* were found to be very important. This may be attributable to the fact that the Fife coastline and St. Andrews beach in particular, are well known for their beauty *"From Aberdour to beautiful St. Andrews, Fife's celebrated coastline casts its own magic spell"* (STB, 1998a).

However, the differences between the two towns, in terms of the important destination attributes, were found to be absent or insubstantial, with the Cramer's V strength of association coefficients for only two of the differences mentioned being greater than 0.2, namely, *the sandy beach* (Cramer's V= .24039) and *the beach is clean* (Cramer's V= .22388). Place or situationality then, does not appear to have a substantial effect on the important destination attributes and may be more pertinent to the comparison of two urban environments with less similar attributes as a holiday destination.

Summary

This chapter has examined the effect that tourism values have on holiday destination selection, in particular, the most attractive attributes of a holiday destination. The tourism value segmentation developed earlier in the present study was further used to explain the tourist value segments in terms of most important destination attributes.

The importance of the natural environment or "setting" in the selection of a holiday destination was emphasised by both the environmental and "other" tourists. This finding stands in some contrast with past ecotourism research, which suggests that general or non-ecotourists do not place similarly high importance on the natural environment as a holiday setting as ecotourists (Kretchman and Eagles, 1990; Johnston, 1990; Wight, 1996a,b). The analysis in this chapter has demonstrated that different attributes of the natural environment as a "setting" are selected to help fulfil the dominant tourism values of distinct value segments. The "setting" is the situation within which tourist activity takes place and it can not only facilitate or limit the tourism activities that occur but also the quality of the tourism experience. As tourism values do, to some extent, influence destination choice, fulfilment of these values will be dependent upon the setting and the opportunities it presents.

The affects of tourism values on the importance placed on particular destination attributes was found to be extensive although in some cases individually weak. However, given that the segmentation approach involved the generalisation of values and important destination attributes across respondents it can not be reasonably expected that strong associations will be produced. As such, the tourism value segments were found to be robust in the sense that dominant tourism values of the segments were found to be reflected by the level of importance placed on particular destination attributes.

It is clear from the analysis in this chapter that the "setting" is very important to many different types of tourists. It is also apparent that different attributes of the setting are

selected to help fulfil the dominant tourism values of distinct value segments. However, the importance placed on particular destination attributes were not found to be substantially different between the "settings" or places. Although the attributes mentioned as most important differed in some cases, in only two cases were these differences judged to be substantial with their Cramer's V's exceeding 0.2 (Table 24). Because of the general similarity between the important destination attributes, situationality between St. Andrews and Pitlochry can be considered as unimportant and perhaps more pertinent to the comparison of more urban environments with more dissimilar attributes.

What has not yet been examined in this work is how the setting is used by these tourists and whether, as hypothesised in this study tourism values will influence holiday making behaviour.

CHAPTER 7

ENVIRONMENTAL AND "OTHER" TOURISTS: HOLIDAY ACTIVITY PREFERENCES IN ST. ANDREWS AND PITLOCHRY

Tourism Activities In Scotland

As commented on in Chapter 2, domestic tourists primarily visit Scotland for the scenery, natural wildlife, the peace and quiet and sites of historic and ecclesiastic interest. This is reflected in what they do when they come to Scotland: their main activities are based upon the country-side and heritage of Scotland. Over six million overnight visitors to Scotland per year currently participate in at least one form of recreational or leisure activity as part of their stay. The most popular activities amongst domestic tourists to Scotland are: hiking rambling and walking (18%), visiting historical monuments (18%) and visiting museums, art galleries and theatres (11%) (STB, 1996).

Comparative Analysis Of Activity Preferences In St. Andrews And Pitlochry

The most common activities among respondents across both sites were walking (92.3%), touring around sightseeing (87.9%), and leisure shopping (83.7%). Visiting a historical monument and nature-watching were also commonly reported activities (66.7% and 59.7% respectively) (Table 29). The frequency of activities carried out in each town indicates that the activities tourists engage in are situationally contingent, dependent upon what is offered in the town and locality. One cannot assume, therefore, that the profile of tourist activities to Scotland (or elsewhere) would be the same if other attraction types were to be made available.

Visitors to St. Andrews are more likely to visit a museum, art gallery or the theatre. Of tourists to St. Andrews, 50.9% had visited a museum compared to 31.0% of visitors to Pitlochry, and 25.7% had visited an art gallery compared to 16.4% of tourists to Pitlochry.

Table 28 Frequency Of Activities Carried Out In Both Scottish Towns

Tourist Activity	St. Andrews		Pitlochry		Aggregate Sample		* χ^2 =	sig. at:	Cramer's V
	Done	Not Done	Done	Not Done	Done	Not Done			
Golf	16.7	83.3	11.0	89.0	13.9	86.1	–	–	–
Fishing	8.0	92.0	19.0	81.0	13.5	86.5	14.61500	.00013	.16095
Walking	90.7	9.3	94.0	6.0	92.3	7.7	–	–	–
Climbing	17.7	82.3	21.3	78.7	19.5	80.5	–	–	–
Camping	16.7	83.3	43.0	57.0	29.8	70.2	48.44013	.00000	.28778
Mountain biking	9.3	90.7	20.7	79.3	15.0	85.0	14.23529	.00016	.15870
Leisure Shopping	84.7	15.3	82.7	17.3	83.7	16.3	–	–	–
Toured Around Sightseeing	85.7	14.3	90.0	10.0	87.8	12.2	–	–	–
Visited a Museum	50.7	49.3	31.0	69.0	40.8	59.2	23.20667	.00000	.20996
Visited an Art Gallery	25.7	74.3	16.4	83.6	21.0	79.0	7.21324	.00724	.11383
Been to the Theatre	18.7	81.3	12.0	88.0	15.4	84.6	4.56131	.03270	.09189
Nature Watching	51.3	48.7	68.0	32.0	59.7	40.3	16.62819	.00005	.16987
Visited a Historical Monument	70.3	29.7	63.3	36.7	66.8	33.2	–	–	–
Visited A Wildlife Attraction	45.0	55.0	53.3	46.7	49.2	50.8	–	–	–
Been to a Funfair / Themepark	23.0	77.0	22.3	77.7	22.7	77.3	–	–	–

Note: Significance levels of two sample χ^2 coefficients are shown where these are < 0.05 / * with continuity correction

Similarly, of all the tourists to St. Andrews, 18.7% had visited a theatre compared with 12.0% of all the tourists to Pitlochry. These differences are likely attributable to the ease of access to this type of activity in St. Andrews. The golf museum is located next

to the old golf course, a major tourist attraction in the town. There are also two other museums in the town, the National Trust Museum and the St. Andrews Museum. There are two theatres and numerous art galleries in St. Andrews. Pitlochry also has the Festival Theatre located by the riverbank. However, a visit to this theatre may be irrelevant to passing visitors as the type of productions put on in this theatre usually require advance booking. During the period of survey the theatres in St. Andrews were mainly showing short adaptations of Scottish historical events, such as the execution of Mary, Queen of Scots. In addition, small repertory companies performed "Living Scottish History" plays throughout the season in the open air. These performances were free. It is likely that some of the respondents considered seeing one of these performance as visiting a theatre. The small art galleries usually located in shops often exhibit works depicting Scottish scenes by local artists.

Similarly, in Pitlochry, the most frequently reported activities were those that are more accessible in a more "rural" location. Forty three per cent of visitors to Pitlochry went camping, compared with only 16.7% of visitors to St. Andrews. There are two campsites in Pitlochry within easy reach of the town centre. Fishing and mountainbiking were also reported as common activities; the open spaces surrounding Pitlochry and Loch Faskally and the River Tummel facilitating this type of activity. Of the tourists to Pitlochry, 19.0% had gone fishing, compared with only 8.0% of tourists to St. Andrews. Of the tourists to Pitlochry, 20.7% reported mountainbiking as an activity, compared with only 9.3% of all tourists to St. Andrews. A greater number of visitors to Pitlochry reported having nature-watched, 68.1 % compared with 50.5 % in St. Andrews. Nature-watching is perhaps partly a coincidental activity in Pitlochry

given the more obviously "rural" location. Clearly, some of these activities may have different meanings to different people. Nature-watching could be simply sitting, watching the riverside or beach, while to more dedicated nature-watchers it could be birdwatching. It could also involve visiting an interpretation centre and following a guided walk, rather than being a self organised activity. Walking may well be upland hill walking or strolling by the riverbank or around the town. The wording of the question in these cases does not allow for this type of distinction.

It is apparent that the major differences between activities carried out among tourists at each site are attributable to what is offered in each locality and the opportunities present in each town. However, it should be noted that although the activities pursued differed in some cases in terms of their frequency of participation, these differences are quite slight, with the Cramer's V's exceeding 0.2.

Ecotourists And Activities

Past research into the activity preferences of ecotourists suggests that these tourists are interested in a wide range of holiday activities and include land and water based, active and passive and generalised and specialised activities. There is strong evidence in the literature that the most popular activities for ecotourists, or nature based tourists, are walking / hiking and trekking, activities that are generally taken as one activity in past research (Nababan and Aliadi 1993; Backman and Potts 1993; Yuan and Christensen 1994). In an attempt to distinguish between these similar activities, Wight (1996b) in her profile of North American ecotourists found that both general tourists and

ecotourists stated that walking / hiking and trekking were their most popular holiday activities. However, when walking and hiking were rated as separate activities, ecotourists were more likely to hike than to go casual walking, and general tourists were far more likely to engage in casual walking as an activity rather than hiking.

Common throughout the literature is the propensity of ecotourists or nature based tourists to engage in physically active activities, (Kretchman and Eagles 1990; Fennell and Smale 1992; Eagles 1992; Crossley and Lee 1994; Canadian Heritage 1995). These activities will depend upon the environment they are in; canoeing or kayaking in river or lakeside locations (Wight 1996a,b), climbing in mountainous regions (Johnston 1990), hiking in any rural or wilderness location.

For the present study, the activities carried out by environmental tourists and "other" tourists to Scotland will firstly be examined at aggregate level, exploring the activities that were most common amongst these two groups overall, and will then be examined by segments, to identify internal distinctions between the environmental tourist and "other" tourist segments when visiting St. Andrews and Pitlochry.

Reference to Table 29 shows that there are few significant differences between environmental tourists and "other" tourists in terms of the activities undertaken. However, some differences were found for the activities climbing, nature-watching, visiting a wildlife attraction and visiting a historical monument although these effects were not strong as indicated by the Cramer's V strength of association coefficients (Table 29). All four of these activities were more likely to be carried out by the

environmental group of tourists. Environmental tourists were more likely to go climbing, 30% of this group had engaged in this activity compared with 16.8% of "other" tourists. Environmental tourists were also more likely to go nature-watching, 77.5% compared with 55.3% of "other" tourists; to visit a historical monument, 75.0 % compared with 64.7% of "other" tourists; or to visit a wildlife attraction 69.2% compared with 44.3% of "other" tourists.

Table 29 Frequency Of Activities Carried Out By "Environmental" Tourists And "Other" Tourists In Both Scottish Towns

Tourist Activity	"Other" Tourists		"Environmental" Tourists		* $\chi 2$ statistics		
	Done	Not Done	Done	Not Done	$\chi 2$=	sig. at:	Cramer's V=
Golf	14.8	85.2	10.8	89.2	–	–	–
Fishing	12.5	87.5	17.5	82.5	–	–	–
Walking	91.5	8.5	95.8	4.2	–	–	–
Climbing	16.8	83.2	30.0	70.0	9.78649	.00176	.13286
Camping	28.5	71.5	35.0	65.0	–	–	–
Mountain biking	14.1	85.9	18.3	81.7	–	–	–
Leisure Shopping	84.0	16.0	82.5	17.5	–	–	–
Toured Around Sightseeing	87.1	12.9	90.8	9.2	–	–	–
Visited a Museum	39.3	60.7	46.7	53.3	–	–	–
Visited an Art Gallery	21.2	78.8	20.2	79.8	–	–	–
Been to the Theatre	15.4	84.6	15.0	85.0	–	–	–
Nature Watching	55.3	44.7	77.5	22.5	18.76405	.00001	.18094
Visited a Historical Monument	64.7	35.3	75.0	25.0	4.17314	.04107	.08775
Visited A Wildlife Attraction	44.3	55.7	69.2	30.8	22.80771	.00000	.19897
Been to a Funfair / Themepark	22.0	78.0	25.0	75.0	–	–	–

Note: Significance level of $\chi 2$ coefficients are only shown where these are < .0.05 * with continuity correction

Some of the findings for the activities carried out by environmental tourists for the present study echo findings elsewhere in the ecotourism literature. In particular, viewing nature and wildlife have been found to be popular activities amongst

ecotourists (Wight 1996b; Crossley and Lee 1994), as are "active" activities such as climbing (Johnston 1990). But, in contrast to the findings of past studies, walking was not found to be significantly more prevalent amongst ecotourists than "other" tourists, although in common with Wight (1996b) it was found to be the most popular activity for the overall sample; 95.8 % of environmental tourists reported walking and similarly 91.5 % of "other" tourists. This may be due to the wording of the question for the present study which unlike Wight (1996b) did not specify the type of walking, i.e. casual walking or trekking. Walking and visiting historical monuments, however, are two of the most popular activities carried out by tourists in Scotland generally. It may be that the relative propensity to engage in these activities will be dependent upon the situation or particular environment which tourists to Scotland are in. As discussed previously, environmental values are considered to be transformational and transactional (Aitken and Bjorklund 1988) and that personal values will be adapted according to the immediate situation (Kahle 1983). It may be that tourist activities are situationally contingent and distinct situations which offer differing opportunities should be analysed separately.

Activities Amongst Tourists To St. Andrews And Pitlochry Based On Their Environmental And "Other" Values.

Analysis of the activities carried out by the environmental tourists and "other" tourists at each Scottish town indicates some differences between the activities carried out by each group in each town, although these effects are not strong as indicated by the weak Cramer's V strength of association coefficients (Tables 30 and 31).

In St. Andrews, some differences between the two groups were found for walking; however, the weak Cramer's V statistic (.13124) indicates that this difference is somewhat slight. Of the environmental tourists to St. Andrews, all had been walking, compared with 89.1% of "other" tourists to St. Andrews. Walking is clearly a popular activity in St. Andrews for both environmental and "other" tourists. Similarly, visiting a museum was slightly more likely amongst environmental tourists than "other" tourists to St. Andrews(Cramer's V=.13725). Of the environmental tourists to St. Andrews, 67.4% had visited a museum, compared with 47.9% of "other" tourists. A stronger effect was found for nature-watching (Cramer's V=.20796), of the environmental tourists to St. Andrews, 76.9% had been nature-watching, compared with 47.1% of "other" tourists to the town. Although more prevalent amongst the environmental tourist group, nature-watching is clearly a popular activity for a large number of both environmental and "other" tourists to St. Andrews.

Table 30 Activities Carried Out By Environmental Tourists And "Other" Tourists In St. Andrews

Tourist Activity	"Other" Tourists		"Environmental" Tourists		*χ2 statistics		
	Done	Not Done	Done	Not Done	χ2=	Sig. at:	Cramer's V
Golf	17.9	82.1	9.3	90.7	–	–	–
Fishing	8.6	91.4	4.7	95.3	–	–	–
Walking	89.1	10.9	100.0	00.0	3.95381	.04660	.13124
Climbing	16.3	83.7	25.6	74.4	–	–	–
Camping	16.7	83.3	16.3	83.7	–	–	–
Mountain biking	10.1	89.9	4.7	95.3	–	–	–
Leisure Shopping	84.4	15.6	86.0	14.0	–	–	–
Toured Around Sightseeing	84.8	15.2	90.7	9.3	–	–	–
Visited a Museum	47.9	52.1	67.4	32.6	4.89478	.02694	.13725
Visited an Art Gallery	24.1	75.9	34.9	65.1	–	–	–
Been to the Theatre	18.7	81.3	18.6	81.4	–	–	–
Nature Watching	47.1	52.9	76.7	23.3	12.9737	.00032	.20796
Visited a Historical Monument	68.9	31.1	79.1	20.9	–	–	–
Visited a funfair or themepark	23.3	76.7	20.9	79.1	–	–	–
Visited a wildlife attraction	42.8	57.2	58.1	41.9	–	–	–

Note: Significance levels of two sample χ^2 coefficients are shown where these are < 0.05 / * with continuity correction

Table 31 Activities Carried Out By Environmental Tourists And "Other" Tourists In Pitlochry

Tourist Activity	"Other" Tourists		"Environmental" Tourists		χ^2 statistics		
	Done	Not Done	Done	Not Done	χ^2=	Sig. at:	Cramer's V
Golf	11.2	88.8	11.7	88.3	–	–	–
Fishing	17.0	83.0	24.7	75.3	–	–	–
Walking	94.2	5.8	93.5	6.5	–	–	–
Climbing	17.4	82.6	32.5	67.5	6.88636	.00869	.16056
Camping	42.0	58.0	45.5	54.5	–	–	–
Mountain biking	18.8	81.3	26.0	74.0	–	–	–
Leisure Shopping	83.5	16.5	80.5	19.5	–	–	–
Toured Around Sightseeing	89.7	10.3	90.9	9.1	–	–	–
Visited a Museum	29.5	70.5	35.1	64.9	–	–	–
Visited an Art Gallery	17.9	82.1	11.8	88.2	–	–	–
Been to the Theatre	11.7	88.3	13.0	87.0	–	–	–
Nature Watching	64.7	35.3	77.9	22.1	4.00236	.04544	.12348
Visited a Historical Monument	59.8	40.2	72.7	27.3	–	–	–
Visited a funfair or themepark	20.5	79.5	27.3	72.7	–	–	–
Visited a wildlife attraction	46.0	54.0	75.3	24.7	18.6691	.00001	.25668

Note: Significance levels of two sample χ^2 coefficients are shown where these are < 0.05 / * with continuity correction

Nature-watching in Pitlochry was also found to be a popular activity amongst both environmental and "other" tourists. Although the analysis indicates a difference between the two groups for this activity, the extent of the effect is slight (Cramer's V=.12348). Of the environmental tourists to Pitlochry, 77.9% had been nature-watching, compared with 64.7% of "other" tourists.

Climbing was also found to be more likely amongst environmental tourists to Pitlochry than "other" tourists (Cramer's V=.16056). Of the environmental tourists to Pitlochry, 32.5% had been climbing, compared with 17.4% of "other" tourists to Pitlochry. A slightly stronger effect was found for visiting a wildlife attraction (Cramer's V=.25668). Of the environmental tourists to Pitlochry, 75.3% had visited a wildlife attraction compared with 46.0% of "other" tourists.

Earlier analysis in this chapter, has indicated that environmental tourism values do influence holiday behaviour in terms of activities, although the associations have been

shown to be weak. These influences have also been shown to be present when environmental and "other" tourists are analysed separately by town. The activities prevalent amongst environmental tourists in each town, walking, visiting a museum and nature-watching in St. Andrews and climbing, nature-watching and visiting a wildlife attraction in Pitlochry, are activities which are consistent with the dominant tourism values of this group, namely *to be closer to nature, freedom in open spaces and to learn something interesting*.

It is also apparent from this analysis that holiday behaviour is in part situationally contingent and is influenced by the opportunities present in any particular situation. Climbing, nature-watching and visiting a wildlife attraction are more prevalent amongst environmental tourists in Pitlochry where the opportunities to engage in them are more readily available. Its mountainous, rural location with the wildlife attraction, the salmon ladder as a focal attraction in Pitlochry facilitates these activities. Similarly, environmental tourists will adapt their contextual tourism values in the more urban location of St. Andrews by walking, nature-watching and visiting a museum. Again, opportunities present in that particular situation which will fulfil their dominant tourism values.

Given the consistency in reported values across both sites, the differences in activities supports an interpretation that individuals adapt their values to a particular environment. Tourism values are contextual; activities in that context are situational. What we seek to measure are values, and how people adapt these to their holiday environment will rarely be static. It will depend partly upon the (goals) values of the

individual in a holiday context, and behaviour in that particular situation will be guided by those contextual values, adapting them to the environment that they are in. Equally, the opportunities available will also shape their behaviour. As such, are both a "demand side" (value) phenomenon, and a "supply side" (opportunities) phenomenon. The latter has not been explicit in ecotourism research; but is to be found more in earlier Recreational Opportunity Spectrum leisure studies which focused on activities rather than on experiences (for examples see Driver et al, 1987; Driver et al, 1991; Manning, 1986).

Tourism Value Clusters And Holiday Activities

The preceding analysis in this chapter has shown that some differences do exist between the holiday activities carried out by "environmental" tourists and the holiday activities carried out by "other" tourists, although these differences have been shown to be slight. These findings reflect those of Wight (1996b) who found that few differences between ecotourists and general tourists existed in terms of activities. However, Wight (1996a,b) treats her sample of general tourists as one homogeneous group. Cluster analysis carried out in Chapter 5 has shown that the two groups of tourists in the present study, "environmental" and "other" tourists, can be disaggregated into different market segments that are distinguishable in terms of their dominant important tourism values. It has also been shown that these different segments are partly distinguishable by other factors such as socio-demographic variables and to a lesser extent important destination attributes.

Past tourism research examining the effect of personal values on activities has segmented tourists on the basis of their personal values and the type of activities that they engage in when on holiday. Jackson (1986) in his study of outdoor recreation participation and attitudes to the environment found that tourists could be segmented on the basis of their environmental attitudes and outdoor recreation activities. Participants in "appreciative" recreation activities (e.g. cross country skiing, hiking) held stronger pro-environmental attitudes (which reflected environmental conservation values) than participants in "consumptive" activities (e.g. snowmobiling, mountainbiking). Similarly, Madrigal and Kahle (1994) in their study of personal values and vacation activity preference found that differences in activity importance ratings existed across segments comprised of tourists homogeneously grouped on the basis of personal values. Thus, the personal value approach to market segmentation would suggest that values do have some effect on the activities engaged in when on holiday. The configuration of personal values held by differing market segments, distinguishing socio-demographic characteristics and the activities which they engage in whilst on holiday in Scotland needs to form an integral part of the analysis. The segmentation by tourism values reported in Chapter 5 may be described in terms of the activities undertaken.

For the two "environmental" tourist value clusters derived (Environmental Hedonic / Cognitive and Environmental Social / Emotive), the clusters were found to be indistinguishable in terms of activities carried out whilst on holiday (Table 32). As they had been for destination attributes.

The four "other" tourist value clusters derived were found to be partly distinguishable by holiday activities, although the differences found were not strong as indicated by the weak Cramer's V strength of association coefficients (Table 32).

The total configurations of holiday activities, dominant values and distinguishing socio-demographic characteristics for the four "other" tourist value clusters, are described in Table 33.

The values of *fun* and *to learn something interesting* which dominated among the "other" tourists in Cluster 3(Hedonic / Cognitive Inner) are reflected in the activities that they engaged in on holiday. In particular, a slightly greater proportion of tourists in this segment had visited a museum (46.8%), compared with 39.3% of the overall sample of "other" tourists; and visited a wildlife attraction (50.0%), compared with

Table 32 Crosstabulation Of Activities Carried Out By Environmental And "Other" Tourists By Tourism Value Clusters

Tourist Activity	Environmental Tourist Segments			"Other" Tourist Segments		
	$\chi 2$ =	Sig. at:	Cramer's V=	$\chi 2$ =	Sig. at:	Cramer's V=
Golf	–	–	–	–	–	–
Fishing	–	–	–	–	–	–
Walking	–	–	–	–	N/A	N/A
Climbing	–	–	–	–	N/A	N/A
Camping	–	–	–	11.31436	.01014	.15337
Mountain biking	–	–	–	N/A	N/A	N/A
Leisure Shopping	–	–	–	–	N/A	N/A
Toured Around Sightseeing	–	–	–	–	N/A	N/A
Visited a Museum	–	–	–	13.60044	.00350	.10815
Visited an Art Gallery	–	–	–	15.36322	.00153	.17872
Been to the Theatre	–	–	–	–	N/A	N/A
Nature Watching	–	–	–	–	N/A	N/A
Visited a Historical Monument	–	–	–	–	N/A	N/A
Visited A Wildlife Attraction	-	-	-	8.42730	.03796	.13236
Been to a Funfair / Themepark	-	-	-	18.85850	.00029	.19801

Note: Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

44.3% of the overall sample of "other" tourists. The propensity to engage in these activities may be influenced by the dominant value *to learn something interesting*. Similarly, the value of *fun* may be seen to have had an influence on the high propensity to visit a funfair or themepark. A greater proportion of "other" tourists in Cluster 1 (31.4%) had engaged in this activity, compared with 22.0% of the overall sample of "other" tourists. Other activity preferences, however, may also be attributable to the young age and student status of these respondents and their concomitant lack of buying power. This may be why camping is slightly more popular amongst this cluster (34.0% compared with 23.5% of the overall sample of "other" tourists).

Table 33 Tourism Value Clusters Summarily Described In Terms Of Dominant Tourism Values, Holiday Activities And Distinguishing Socio-Demographic Characteristics

"Environmental" tourist clusters	Distinguishing tourism values	Distinguishing Holiday Activities	Overall % for "environmental" tourists	Distinguishing socio-demographic characteristics
Cluster 1 56.7% N=68	HEDONIC / COGNITIVE			
Cluster 2 43.3% N=52	SOCIAL / EMOTIVE			Parents with children in their personal group.
"Other" tourist Clusters	**Distinguishing tourism values**	**Distinguishing Holiday Activities**	**Overall % for "other" tourists**	**Distinguishing Socio-demographic characteristics**
Cluster 3 32.4% N= 156	HEDONIC / COGNITIVE INNER	(46.8%) had visited a museum	39.3	Younger, students
		(34.%) had camped	23.5	
		(31.4%) had visited a funfair	22.0	
		(50.0%) had visited a wildlife attraction	44.3	
Cluster 4 42.0% N=201	PERSONAL / EMOTIVE	(70.3%) had NOT visited a museum	60.7	Parents with children in their personal group
		(85.3%)had NOT camped	71.5	
		(70.3%) had NOT visited a museum	55.7	
Cluster 5 14.1% N=68	HEDONIC /COGNITIVE OUTER	(47.3%)had visited a museum	39.3	Professional, no children in their personal group
		(36.8%) had visited an art gallery	21.2	
Cluster 6 11.4% N=55	DE-EMPHASISERS			Older, male

Cluster 5 (Hedonic/ Cognitive outer), a segment with values similar to those of Cluster 3, were more likely to engage in activities which fulfilled their cognition dominant values *to learn something about my own country* and *somewhere well known so I can tell my friends*. Of the tourists in this segment, a greater proportion had visited an art gallery, 36.8% compared to 21.2% of the overall sample of "other" tourists. Similarly, a high percentage of this segment (47.3%) had visited a museum compared with 39.3% of the overall sample of "other" tourists.

In contrast Cluster 3, (Personal / Emotive) and Cluster 6 (De-emphasisers) were indistinguishable in terms of holiday activities.

Tourism Value Clusters And Holiday Activities In St. Andrews

Earlier analysis in this chapter has indicated that the activities carried out in St. Andrews and Pitlochry are at least in part situationally contingent, dependent upon the opportunities available in these two places. It may be useful to examine the activities carried out by each market segment at each separate location in order to clarify how the tourist values held by each distinct segment are adapted in different situations.

Analysis of the activities carried out by environmental tourists to St. Andrews indicates that the two environmental tourist value clusters derived were not found to be distinguishable in any way in terms of the activities that they engaged in whilst on holiday in St. Andrews (Table 34).

Somewhat similarly, for the four "other" tourist value clusters for St. Andrews, tourists were found to differ only in terms of two activities, namely, having visited an art gallery (Cramer's V=.20231) and having visited a funfair or themepark (Cramer's V=.28190) (Table 34). The tourism value clusters for tourists to St. Andrews are summarily described in terms of these two distinguishing holiday activities in Table 35.

Table 34 Crosstabulation Of Activities Carried Out By Environmental And "Other" Tourists In St. Andrews By Tourism Value Clusters

Tourist Activity	"Environmental" Tourist Segments			"Other" Tourist Segments		
	$\chi 2$ =	Sig. at:	Cramer's V=	$\chi 2$ =	Sig. at:	Cramer's V=
Golf	–	–	–	–	–	–
Fishing	–	–	–	–	–	–
Walking	–	–	–	–	–	–
Climbing	–	–	–	–	–	–
Camping	–	–	–	–	–	–
Mountain biking	–	–	–	–	–	–
Leisure Shopping	–	–	–	–	–	–
Toured Around Sightseeing	–	–	–	–	–	–
Visited a Museum	–	–	–	–	–	–
Visited an Art Gallery	–	–	–	10.51897	.01463	.20231
Been to the Theatre	–	–	–	–	–	–
Nature Watching	–	–	–	–	–	–
Visited a Historical Monument	–	–	–	–	–	–
Visited A Wildlife Attraction	–	–	–	–	–	–
Been to a Funfair / Themepark	–	–	–	20.42381	.00014	.28190

Note: Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

In particular, Cluster 5 (Hedonic/Cognitive Outer) was characterised by a greater proportion of tourists who had visited an art gallery (39.0%), compared with 24.1% of the overall sample of "other" tourists to St. Andrews. This behaviour is consistent with the cognition dominant tourism values held by this cluster, in particular, *to learn something about my own country*. As commented on earlier, art galleries in St. Andrews tend to be small and locally owned, exhibiting landscape paintings by local artists.

Cluster 3 (Hedonic/ Cognitive Inner) was characterised by a greater proportion of tourists who had visited a funfair or themepark (34.1%), compared with 23.3% of the overall sample of "other" tourists to St. Andrews. This behaviour is also consistent with the dominant values of this group, although, in contrast to Cluster 5, it is the hedonic values of *fun* and *excitement* which are being fulfilled by this activity.

Table 35 Tourism Value Clusters Summarily Described In Terms Of Their Distinguishing Holiday Activities, Dominant Tourism Values And Socio-Demographic Characteristics When Visiting St. Andrews

Environmental Clusters	Dominant tourism values	Distinguishing Holiday Activities	Overall % for environmental tourists to St. Andrews	Distinguishing Socio-demographic characteristics
Cluster 1 51.9% N=40	HEDONIC / COGNITIVE			
Cluster 2 48.1% N=37	SOCIAL / EMOTIVE			Parents with children in their personal group
"Other" Clusters	Dominant tourism values	Distinguishing Holiday Activities	Overall % for "other" tourists to St. Andrews	Distinguishing Socio-demographic characteristics
Cluster 3 35.4% N= 91	HEDONIC / COGNITIVE INNER	(34.1%) had visited a funfair or themepark	23.3	Young, students
Cluster 4 37.7% N=97	PERSONAL / EMOTIVE			Parents with children in their personal group
Cluster 5 16.0% N=41	HEDONIC /COGNITIVE OUTER	(39.0%) had visited an art gallery	24.1	Professional, no children in their personal group
Cluster 6 10.9% N=28	DE-EMPHASISERS			Older, male

Tourism Value Clusters And Holiday Activities In Pitlochry

In contrast to the absence of differences at St. Andrews, analysis of the activities carried out by environmental tourists to Pitlochry indicates that there were two differences found between the two environmental tourist value clusters derived in terms of the activities that they engaged in whilst on holiday in Pitlochry; namely, nature-watching (Cramer's V=.26126) and camping (Cramer's V=.30373 (Table 36).

The tourism value clusters for tourists to Pitlochry are summarily described in terms of these two distinguishing holiday activities in Table 37, but the overall picture remains one of minimal difference between the segments.

Table 36 Crosstabulation Of Activities Carried Out By Environmental And "Other" Tourists In Pitlochry By Tourism Value Clusters

Tourist Activity	"Environmental" Tourist Segments			"Other" Tourist Segments		
	$\chi 2$ =	Sig. at:	Cramer's V=	$\chi 2$ =	Sig. at:	Cramer's V=
Golf	--	--	--	--	--	--
Fishing	--	--	--	--	--	--
Walking	--	--	--	--	--	--
Climbing	--	--	--	--	--	--
Camping	5.93498	.01484	.30373	9.84806	.01990	.20968
Mountain biking	--	--	--	--	--	--
Leisure Shopping	--	--	--	--	--	--
Toured Around Sightseeing	--	--	--	--	--	--
Visited a Museum	--	--	--	--	--	--
Visited an Art Gallery	--	--	--	--	--	--
Been to the Theatre	--	--	--	--	--	--
Nature Watching	4.07067	.04363	.26126	--	--	--
Visited a Historical Monument	--	--	--	--	--	--
Visited A Wildlife Attraction	--	--	--	13.56925	.00355	.24612
Been to a Funfair / Themepark	--	--	--	--	--	--

Note: Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

Of the two environmental tourism value clusters, Cluster 2 (Environmental Social/Emotive) was characterised by a slightly disproportionate number of tourists who had been nature-watching (89.2%), compared with 77.9% of environmental tourists to Pitlochry in Cluster 1. Cluster 1 (Environmental Hedonic/Cognitive) was characterised by a greater proportion of tourists to Pitlochry who had camped, 60.0% of tourists in Cluster 1 had camped, compared with 45.5% of environmental tourists to Pitlochry in Cluster 2.

For the four "other" tourist value clusters for Pitlochry, two activities discriminated between segments: camping (Cramer's V=.20968) and having visited a wildlife attraction (Cramer's V=.24612) (Table 37).

Table 37 Tourism Value Clusters Summarily Described In Terms Of Their Distinguishing Holiday Activities, Dominant Tourism Values And Socio-Demographic Characteristics When Visiting Pitlochry

Environmental Clusters	Dominant tourism values	Distinguishing Holiday Activities	Overall % for environmental tourists to Pitlochry	Distinguishing Socio-demographic characteristics
Cluster 1 65.1% N=28	HEDONIC / COGNITIVE	(60.0%) had been camping	45.5	
Cluster 2 34.9% N=15	SOCIAL / EMOTIVE	(89.2%) had been nature-watching	77.9	Parents with children in their personal group
"Other" Clusters	**Dominant tourism values**	**Distinguishing Holiday Activities**	**Overall % for "other" tourists to Pitlochry**	**Distinguishing Socio-demographic characteristics**
Cluster 3 29.0% N= 65	HEDONIC / COGNITIVE INNER	(44.6%) had visited a wildlife attraction	29.5	Young, students
		(50.8%)had been camping	42.0	
Cluster 4 46.9% N=105	PERSONAL / EMOTIVE			Parents with children in their personal group
Cluster 5 12.1% N=27	HEDONIC /COGNITIVE OUTER			Profesional, no children in their personal group
Cluster 6 12.1% N=27	DE-EMPHASISERS			Older, male

In particular, Cluster 3 (Hedonic/ Cognitive Inner), was characterised by a disproportionate number of tourists who had visited a wildlife attraction (44.6%), compared with 29.5% of the overall sample of "other" tourists to Pitlochry. Similarly, Cluster 3 contained a greater proportion of tourists who had gone camping, 50.8% of the tourists in this segment reported camping compared with 42.0% of the overall sample of "other" tourists to Pitlochry.

Summary

This chapter has examined the affect of tourism values on holidaymaking behaviour, in particular the activities engaged in whilst on holiday. The tourism value segmentation developed in Chapter 5 was used to further validate the value segmentation in terms of behaviour. As discussed in Chapter 1, values may be fulfilled through their

adaptation to any particular situation, and for this reason the effect of specific place on holiday activities was also considered. The analysis has shown that the differences between the two towns were insubstantial for all but two activities, namely camping (Cramer's V = .28778) and having visited a museum (Cramer's V = .20006). In the light of these absent or insubstantial differences, situationality may be more pertinent to comparisons of more dissimilar urban environments, such as large cities and either of the two survey towns.

Likewise, when disaggregated into segments, although the activity profiles for the segments in aggregate is much the same, in some situations segments holding the same values will undertake different activities. However, the analysis also indicates that whilst some differences do exist between the activities undertaken in the two towns there is also quite a strong degree of generality of activities across the segments. Walking, leisure shopping, nature-watching, touring around sightseeing and visiting historical monuments are activities that are generically popular amongst these tourists to Scotland, irrespective of dominant tourism values or specific location. The environment of Scotland as a holiday destination facilitates these activities: indeed, they have consistently been found to be the most popular activities amongst tourists to Scotland (STB, 1996). This further supports an interpretation that individuals adapt their values to a particular environment and situation or are deterred to other places earlier in the process of decision making if adaptation is considered unwanted.

From the analysis in this chapter, it is clear that values do have some influence on the activities undertaken on holiday. Tourism values are adapted to a particular situation and environment and the activities engaged in will be those that fulfil tourism values

and are facilitated by the immediate environment. Tourism activities then are, as hypothesised, in part situationally contingent, guided by contextual (i.e. tourism) values.

Equally, it is apparent that the opportunities present in a specific environment will also shape tourist behaviour. As such, activities can be seen as both a "demand side" (value) phenomenon, and a "supply side" (opportunities) phenomenon.

CHAPTER 8

AFFECTIVE ATTACHMENT TO ST. ANDREWS AND PITLOCHRY AMONGST ENVIRONMENTAL AND "OTHER" TOURISTS

Environmental And "Other" Tourists - Attachment To Scotland

Few previous tourism studies have examined the concept of affective attachment to place by tourists. Williams et al (1992) in their study of place attachment to wilderness areas used Likert scales to assess both the degree of attachment to study areas (Caney Creek, Cohutta, Rattlesnake and Upland Island) and the degree of attachment to wilderness places as a class of setting. Kaltenborn (1997) in his study of place attachment among recreation homeowners in Norway uses similar Likert scales to measure place attachment and place attributes. Prentice et al (1994) in their study of endearment behaviour of tourists to Gower, Wales, also used Likert scales to assess the degree of interaction with the local community and place. Attachment to place has been more usually defined for residents, homes, community and neighbourhood rather than for tourists (see for example Feldman, 1990).

In common with these past tourism studies, the present study used six place and "natural environment" attachment statements. The questions were rated on a five point Likert scale ranging from "strongly agree" to "strongly disagree". The " natural environment" attachment statements included were: *I find that a lot of my holidays are organised around areas of natural beauty* and *To me, this area represents a typical Scottish landscape.* The place attachment questions included were: *I am very fond of (place[1]), it means a lot to me; I love to visit Scotland; (Place) is unique, I wouldn't substitute any other place for doing the type of things I do here; (Place) is a typical*

[1] Note: Place = Pitlochry or St. Andrews as appropriate.

Scottish town. These statements were derived from qualitative interviews carried out with tourists in the exploratory stage of this study (See Chapter 2).

The tourist environmental value index which was used to categorise tourists into environmental tourists and "other" tourists in Chapter 5, was found to be associated with the place attachment scales for visiting Scotland. There were also extensive but individually weak differences in levels of place attachment to Scotland between the groups of environmental tourists and "other" tourists as indicated by the Cramer's V strength of association coefficients (Table 38).

Table 38 Crosstabulation Of The Six Place Attachment Statements For Environmental And "Other" Tourists To Scotland

Place attachment statements	"Environmental" tourists	"Other" tourists	$\chi 2$ statistics		
	Strongly agree %	Strongly agree %	$\chi 2$=	Sig. at:	Cramer's V=
I am very fond of (place), it means a lot to me	44.2	31.6	9.62542	.04723	.12655
I love to visit Scotland	86.8	63.2	23.03997	.00012	.19580
(Place) is a typical Scottish town	35.0	27.4	–	–	–
(Place) is unique, I wouldn't substitute any other place for doing the type of things I do here	31.7	18.9	10.55407	.03206	.13252
I find that a lot of my holidays are organised around areas of natural beauty	86.7	37.8	94.17409	.00000	.39585
To me, this area represents a typical Scottish landscape	48.3	34.5	10.23313	.03668	.13049

Note: Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

However, one strong effect was found for the statement *I find that a lot of my holidays are organised around areas of natural beauty* (Cramer's V = .39585). Environmental tourists were much more likely to strongly agree with this statement. Of the environmental tourist group, 86.7% strongly agreed with this statement compared with 37.8% of "other" tourists. Strong agreement with this statement is as expected

given the high importance that this group of tourists place on the values of *to be closer to nature* and *freedom in open spaces*. However, it is not clear from this analysis whether the strong attachment is to areas of natural beauty generically, which would make it more likely that these environmental tourists to Scotland would substitute Scotland for other areas of natural beauty, or, whether the attachment is to the specific place, i.e. to St. Andrews or Pitlochry.

Environmental And "Other" Tourists And Attachment To Place

The previous two chapters have shown that the "setting" is very important to both environmental tourists and "other" tourists to Scotland. Both environmental and "other" tourists were found to place strong importance on the attractive, natural environment of the two towns. The setting is the context within which tourist activity takes place and it can not only facilitate or limit the tourism activities that occur but also the quality of the tourism experience. If, as has been demonstrated, tourism values influence destination choice, fulfilment of these values and satisfaction will be dependent upon the setting and the opportunities it presents.

The analysis of the two settings pertinent to the present study (namely Pitlochry and St. Andrews) has focused on a multi-attribute approach; that is, it has identified the features and amenities of the two settings which will satisfy the tourism values and goals of the tourists who visit them. This has been the prevailing approach in the research examining nature based or ecotourists discussed in Chapter 5; for example Obua and Harding's (1996) study of visitors to Kibale National Park, Uganda,

Jurowski et al's (1995) study of visitors to Biscayne Bay National Park, and Saleh and Karwacki's (1996) study of Ecotourists to Grassland National Park. The settings or destinations examined in these studies are represented as collections of features or attributes, the general view being that if the attributes and amenities that are attractive to tourists who visit wilderness or "ecotourist" destinations can be identified, the problem of designing, developing, promoting and sustaining a particular setting is reduced to that of identifying the most valued and optimal combination of attributes for that market segment.

Other research (Williams 1988; Williams et al 1992; Kaltenborn 1997) views the multi-attribute approach to recreation settings as inadequate and problematic. Its limitations being based on the emphasis that this approach puts on settings as means rather than ends; settings and places are seen as interchangeable provided that the alternative provides a similar combination of attributes, thus ignoring the fact that recreation settings are often unique places that cannot be designed or replicated. Thereby, the affective "consumption" of unique place becomes of potential interest.

The level of attachment that an individual feels towards a place or setting may reduce the willingness to substitute settings and may increase the level of concern regarding how a place is used. Attachment to a place may be reflected in the different ways that individuals interact with a setting. For example, Williams (1988) in his study measuring similarity in outdoor recreation activities suggested three primary modes of outdoor recreation experience: activities, companions and settings. In his framework, the setting may be central to the experience for some, but only a background for achieving

activity or social goals for others. Williams suggested that attachment is likely to be greater amongst individuals who focus on the setting itself relative to other aspects of the recreational experience.

This raises some interesting points for the present study. The past two chapters have shown that tourists who can be grouped by their environmental values are distinguishable to a far lesser extent than "other" tourists by the importance that they place on particular attributes of a place, or activities that they engage in whilst visiting. Segments of the "other" tourists have been found to identify a wide variety of place attributes and activities that were disproportionately important to them when they chose to visit the area, such as *ease of access from home*, *the area is good for children*, *I liked it when I have been before*, *the area is good for walks* and *the attractive, natural setting*. In contrast, the segments of environmental tourists have not been found to place disproportionate importance on any particular attribute in either of the two towns. This may be because their tourism values are fulfilled through an emotional attachment to a specific place, Pitlochry or St. Andrews. Equally, it may be an attractive natural environment as a "setting" that fulfils their dominant tourism values rather than the particular attributes of a specific place or the activities it facilitates.

Place Attachment Amongst Environmental And Other Tourists To St. Andrews

There were few differences between environmental and "other" tourists to St. Andrews (Table 39) in terms of attachment to St. Andrews. Two statements were discriminating, *I find that a lot of my holidays are organised around areas of natural beauty* (Cramer's V = .39084) and *to me, this area represents a typical Scottish landscape* (Cramer's V = .20359). Both of these statements were more strongly agreed with by the group of environmental tourists. Of the group of environmental tourists to St. Andrews, 88.4% strongly agreed with the statement *I find that a lot of my holidays are organised around areas of natural beauty*, compared with 34.2% of "other" tourists to St. Andrews. Similarly, of the group of environmental tourists to St. Andrews, 34.9% strongly agreed with the statement *to me, this area represents a typical Scottish landscape*, compared with 19.8% of "other" tourists to St. Andrews.

Table 39 Crosstabulation Of The Six Place Attachment Statements For Environmental And "Other" Tourists To St. Andrews

Place attachment statements	"Environmental" tourists	"Other" tourists	χ2 statistics		
	Strongly agree %	Strongly agree %	χ2=	Sig. at:	Cramer's V=
I am very fond of St. Andrews, it means a lot to me	30.2	31.5	–	–	–
I love to visit Scotland	76.7	59.9	–	–	–
St. Andrews is a typical Scottish town	32.6	24.5	–	–	–
St. Andrews is unique, I wouldn't substitute any other place for doing the type of things I do here	23.3	23.0	–	–	–
I find that a lot of my holidays are organised around areas of natural beauty	88.4	34.2	45.82594	.00000	.39084
To me, this area represents a typical Scottish landscape	34.9	19.8	12.43469	.01440	.20359

Note: Significance levels of χ2 coefficients are shown only where these are < 0.05

Place Attachment Amongst Environmental And Other Tourists To Pitlochry

In contrast to St. Andrews, there were extensive differences between levels of place attachment to Pitlochry between environmental and "other" tourists to Pitlochry (Table 40). These effects were found for the statements; *I am very fond of Pitlochry, it means a lot to me* (Cramer's V = .20134) *I love to visit Scotland* (Cramer's V = .24153) *Pitlochry is unique, I wouldn't substitute any other place for doing the type of things I do here* (Cramer's V = .24518), and *I find that a lot of my holidays are organised around areas of natural beauty* (Cramer's V = .38675).

Table 40 Crosstabulation Of The Six Place Attachment Statements For Environmental And "Other" Tourists To Pitlochry

Place attachment statements	"Environmental" tourists	"Other" tourists	χ^2 statistics		
	Strongly agree %	Strongly agree %	χ^2=	Sig. at:	Cramer's V=
I am very fond of Pitlochry, it means a lot to me	51.9	31.7	12.20130	.00672	.20134
I love to visit Scotland	90.9	67.0	17.5587	.00150	.24153
Pitlochry is a typical Scottish town	36.4	30.8	–	–	–
Pitlochry is unique, I wouldn't substitute any other place for doing the type of things I do here	36.4	14.3	18.09377	.00118	.24518
I find that a lot of my holidays are organised around areas of natural beauty	85.7	42.0	45.02302	.00000	.38675
To me, this area represents a typical Scottish landscape	55.8	51.3	–	–	–

Note: Significance levels of χ^2 coefficients are shown only where these are < 0.05

Similar to St. Andrews, it was found to be the group of environmental tourists who agreed most strongly with these statements.

Of the environmental tourists to Pitlochry, 51.9% strongly agreed with the statement *I am very fond of Pitlochry, it means a lot to me*, compared with 31.7% of "other" tourists to Pitlochry. Of the environmental tourists to Pitlochry, 90.9%, strongly agreed with the statement *I love to visit Scotland*, compared with 67.0% of other tourists to Pitlochry. Of the environmental tourists to Pitlochry, 36.4% strongly agreed with the statement *Pitlochry is unique, I wouldn't substitute any other place for doing the type of things I do here*, compared with 14.3% of "other" tourists to Pitlochry. Of the environmental tourists to Pitlochry, 85.7%% strongly agreed with the statement *I find that a lot of my holidays are organised around areas of natural beauty*, compared with 42.0% of "other" tourists to Pitlochry.

The strong relationship between the "natural environment" attachment questions and the group of environmental tourists would suggest that these tourists are strongly attached to areas of natural beauty and that for them, "naturally" beautiful areas may be substitutable. However, the associations between the place attachment scales and environmental tourists to Pitlochry are also strong, indicating that Pitlochry or a similar Scottish environment may be less substitutable to this group of tourists. However, it should be noted that the extent of substitutability pertains here: for these tourists the Tay Valley is unique and clearly these tourists have visited more than once, but that is not to suggest that they would not go elsewhere. Rather, it does imply that repeat visits are more likely amongst this group. Similarly, Williams et al (1992) found that high wilderness attachment was often associated with high place attachment, indicating that tourists are often attached to both place and wilderness. The Scottish Tourist Board is recommended on the present findings to develop environmental tourism more

fully so to facilitate greater place attachment, and repeat visiting by tourists who, through their attachment may have increased levels of concern about the area and how it is used.

Activities And Attachment To Place

Williams et al (1992) in their study of attachment to place amongst wilderness users examined the effect of activity-focused and place-focused visitors on their levels of place and wilderness attachment. As might be expected, the study found that visitors who were place- focused had significantly higher place attachment scores than those visitors that were activity– focused. Similarly, strong wilderness attachment was more likely to be associated with place-focused visitors than activity-focused visitors. Specific activities measured in Williams et al (1992) study were restricted to those which were common in the wilderness study sites used, namely, hunting, fishing, hiking and nature study. Wilderness attachment was found to be stronger amongst those participating in nature study. Prentice et al (1994) in their study of tourist's endearment to Gower, found that place endearment was effected through generalist and informal activities.

Activities In St. Andrews And Pitlochry And Attachment To Place

There were some significant differences between the environmental and "other" tourists' in terms of the effect of place attachment on their activities. The relationships

between activities and place and "natural environment" attachment are presented in Table 41 for St. Andrews.

For the group of environmental tourists, three effects were found for the activities, camping, mountainbiking, and visited a funfair (Table 41). These effects were all found to be negatively associated with strong attachment to the "natural" environment. That is, environmental tourists who had not done these activities tended to display stronger attachment to the "natural" environment.

Of the environmental tourists to St. Andrews who strongly agreed with the statement *I find that a lot of my holidays are organised around areas of natural beauty*, none had been camping, compared with 36.1% of environmental tourists who did not strongly agree with this statement. Similarly, this statement was found to be negatively associated with visiting a funfair. Of the environmental tourists to St. Andrews who strongly agreed with this statement, 66.7% had been to a funfair, compared with 94.1% of environmental tourists who did not strongly agree with this statement.

Of the environmental tourists to St. Andrews who strongly agreed with the statement *To me, this area represents a typical Scottish Landscape*, none had been mountainbiking, compared with 80.5% of environmental tourists who did not strongly agree with this statement. Similarly, of the environmental tourists to St. Andrews who strongly agreed with this statement 55.6% had been to the funfair, compared with 82.4% of environmental tourists who did not strongly agree that to them the area represented a typical Scottish landscape.

Strong attachment to the "natural environment" amongst these environmental tourists was found when they had not participated in climbing, visiting a funfair and mountainbiking. These results are not unexpected, as discussed in the previous chapter, these activities are not usually associated with environmental or nature based tourists and these are not activities that are necessarily facilitated by an attractive, natural environment setting. Mountainbiking, although a physical activity is viewed by many nature based tourists or ecotourists as a "consumptive" activity which has a detrimental effect on the environment (Jackson, 1986). Similarly, although camping has been found in past tourism studies to be often participated in by nature based or environmental tourists, in Scotland, much camping is on organised and regulated sites, not in unserviced and remote locations. Additionally, it has been shown in the last three chapters of the present study that the environmental tourists identified are not one homogeneous subset of tourists, but that they can be further distinguished on the basis of their secondary values. In the present study, the two segments of environmental tourists identified have different secondary value orientations supplementing their strong environmental values, namely, Hedonic/ Cognitive values and Social/Emotive values. It may be that the environmental tourists with secondary hedonic values are more activity focused as a means of satisfying these values, and, as suggested by Williams et al, 1992, consequently, less place attached than the other group of environmental tourists with more "affective", emotional values.

Table 41 Crosstabulation Of Holiday Activities By The Six Place Attachment Statements For Environmental And "Other" Tourists To St. Andrews

"Environmental" tourists	Tourist Activity			
Place attachment statements	camping	visited a funfair	Mountainbiking	
I am very fond of St. Andrews, it means a lot to me		–	–	
I love to visit Scotland	–	–	–	
St. Andrews is a typical Scottish town	–	–	–	
St. Andrews is unique, I wouldn't substitute any other place for doing the type of things I do here	–	–	–	
I find that a lot of my holidays are organised around areas of natural beauty	–	6.42707 .04021 .38661-	–	
To me, this area represents a typical Scottish landscape	8.89902 .03066 .45492-	7.79796 .02026 .42585-	10.88923 .02784 .50323-	

"Other" tourists	Tourist Activity					
Place attachment statements		walking	Nature watching	leisure shopping	Visited a wildlife attraction	visited a funfair
I am very fond of St. Andrews, it means a lot to me		–	–	9.98151 .04074 .19708+	–	10.18281 .03746 .19905+
I love to visit Scotland		8.71935 .03326 .18419+	–	–	13.21947 .01025 .22680+	–
St. Andrews is a typical Scottish town		–	–	–	–	–
St. Andrews is unique, I wouldn't substitute any other place for doing the type of things I do here		–	–	–	–	17.50257 .00054 .26097+
I find that a lot of my holidays are organised around areas of natural beauty		–	13.22935 .01021 .22688+	–	–	–
To me, this area represents a typical Scottish landscape		–	–	–	–	–

Pearson's $\chi 2$ value, Pearson's $\chi 2$ significance, Cramer's V / Direction of effect; + Direct effect, - Inverse effect
Note: Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

For the group of "other" tourists to St. Andrews, extensive effects were found for the activities, walking, naturewatching, leisure shopping, having visited a wildlife attraction and having visited a funfair. These effects were individually much weaker than those found for the group of environmental tourists as indicated by the Cramer's V strength of association coefficients (Table 41).

For the statement *I am very fond of St. Andrews, it means a lot to me,* effects were found for the activities, leisure shopping (Cramer's V = .19708) and visited a funfair (Cramer's V = .19905). Of the "other" tourists who strongly agreed that they were very fond of St. Andrews, 45.0% had been to a funfair, compared with 27.4% of "other" tourists who did not strongly agree with this statement. Similarly, of all the "other" tourists who strongly agreed with the statement *I am very fond of St. Andrews it means a lot to me,* 35.0% had been leisure shopping, compared with 12.5% of "other" tourists who did not strongly agree with this statement.

For the statement, *St. Andrews is unique, I wouldn't substitute any other place for the type of things I do here,* one effect was found for the activity, having visited a funfair (Cramer's V = .26097). Of the "other" tourists to St. Andrews who strongly agreed with this statement, 36.7% had been to the funfair, compared with 18.8% of "other" tourists who did not strongly agree that St. Andrews is unique.

Affective attachment as fondness for St. Andrews amongst these tourists is related to the towns unique ability to facilitate the activities of leisure shopping and visiting a funfair. St. Andrews is well known for its' range of small shops, many specialising in unique golfing items and academic history books and papers. Also contributing to this "uniqueness", is the *Lammas Fair*, an annual event unique to St. Andrews, which takes place in August (during the period of survey).

Some effects of place attachment were also found for the activities, walking (Cramer's V =.18419), having visited a wildlife attraction (Cramer's V = .22680) and naturewatching (Cramer's V = .22688) respectively. Of the "other" tourists to St.

Andrews who strongly agreed with the statement *I love to visit Scotland*, 62.0% had been walking, compared with 42.9% of "other" tourists who did not strongly agree with this statement. Similarly, of the "other" tourists to St. Andrews who strongly agreed with this statement, 25.5% had visited a wildlife attraction, compared with 15.6% of "other" tourists who did not strongly agree that they loved to visit Scotland. Of the "other" tourists to St. Andrews who strongly agreed with the statement *I find that a lot of my holidays are organised around areas of natural beauty*, 43.8% had been naturewatching, compared with 25.7% of "other" tourists who did not strongly agree that a lot of their holidays were organised around areas of natural beauty.

It is interesting to note, that amongst "other" tourists to St. Andrews, the effect of attachment to place on activities appears to be on two distinct levels, attachment to St. Andrews, specifically, and attachment to Scotland generally. Tourists who strongly agreed with the statement *I love to visit Scotland* were likely to participate in the activities walking, naturewatching and visiting a wildlife attraction. As discussed in Chapters 2 and 7 of the present study, these activities are amongst those most commonly carried out by visitors to Scotland. Attachment to Scotland then, is as a place which facilitates these activities. On a more specific level, these tourists are also attached to St. Andrews itself as a place where they can participate in unique activities such as visiting the *Lammas Fair* and a particular type of leisure shopping.

Analysis of the six place attachment statements with the holiday activities carried out in Pitlochry by environmental and "other" tourists indicates that activities undertaken

differed for the two principal types of tourists in terms of their expressed place attachment or attachment to the "natural environment"(Table 42).

For the group of environmental tourists to Pitlochry, some effects of attachment to place and to the "natural environment" were found for the activities, toured around sightseeing, walking, been to the theatre and naturewatching.

Table 42 Crosstabulation Of Holiday Activities By The Six Place Attachment Statements For Environmental And "Other" Tourists To Pitlochry

"Environmental" tourists	Tourist Activity				
Place attachment statements	Toured around sightseeing	Walking	Been to the theatre	Camping	Nature-watching
I am very fond of Pitlochry, it means a lot to me	8.53417 .03617 .33292-	–	–	–	–
I love to visit Scotland	–	9.94583 .00692 .35940+	–	–	–
Pitlochry is a typical Scottish town	–	12.25940 .01552 .39901+	–	–	–
Pitlochry is unique, I wouldn't substitute any other place for doing the type of things I do here	–	–	11.12690 .02517 .38014+	–	–
I find that a lot of my holidays are organised around areas of natural beauty	8.84583 .03141 .33894-	–	–	–	9.03051 .02889 .34246+
To me, this area represents a typical Scottish landscape	–	–	–	–	–

"Other" tourists	Tourist Activity	
Place attachment statements	Toured around sightseeing	Walking
I am very fond of Pitlochry, it means a lot to me	13.79184 .00799 .24813+	–
I love to visit Scotland	–	–
Pitlochry is a typical Scottish town	–	–
Pitlochry is unique, I wouldn't substitute any other place for doing the type of things I do here	–	–
I find that a lot of my holidays are organised around areas of natural beauty	–	–
To me, this area represents a typical Scottish landscape	–	14.91014 .00489 .25800+

Pearson's $\chi 2$ value, Pearson's $\chi 2$ significance, Cramer's V / Direction of effect; + Direct effect, - Inverse effect
Note: Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

Some strong effects of place attachment were found for the activities, having been to the theatre (Cramer's V =.38014) and walking (Cramer's V =.35940). Of the environmental tourists to Pitlochry who strongly agreed with the statement, *Pitlochry is unique, I wouldn't substitute any other place for doing the type of things I do here,* 60.0% had been to the theatre, compared with 32.8% of environmental tourists who did not strongly agree with this statement. Similarly, of all the environmental tourists to Pitlochry who strongly agreed with the statement *I love to visit Scotland,* 93.1% had been walking, compared with 60.0% of environmental tourists who did not strongly agree with this statement.

A strong effect of attachment to the "natural environment" was found for the activity, naturewatching (Cramer's V=.34246). Of the environmental tourists to Pitlochry who strongly agreed with the statement *I find that a lot of my holidays are organised around areas of natural beauty,* 90.0% had been naturewatching, compared with 60.6% of environmental who did not strongly agree with this statement.

Similar to the findings for tourists to St. Andrews, these tourists feel a strong level of attachment to Pitlochry for its ability to facilitate a unique activity, in this case, visiting the theatre. As noted in Chapter 2 of the present study, The Festival Theatre in Pitlochry is well known for the high quality of the performances staged there which are often works by Scottish authors which could not be seen anywhere else. During the summer season, the programme of events at the theatre changes frequently, permitting holidaymakers to the town to potentially see several different works during their stay.

The activity, toured around sightseeing was found to be an exception to the generally positive effects of attachment to Pitlochry the place, and to the "natural environment" as a class of places on the activities carried out there. Strong agreement with the statement *I am very fond of Pitlochry , it means a lot to me* (Cramer's V =.33292) was found to be associated with those tourists who had not toured around sightseeing, 14.3% environmental tourists to Pitlochry who strongly agreed that they were very fond of Pitlochry had been touring, compared with 55.0% of environmental tourists who did not strongly agree with this statement. Similarly, of the environmental tourists to Pitlochry who strongly agreed with the statement *I find that a lot of my holidays are organised around areas of natural beauty*, 57.1% had toured around sightseeing, compared with 88.6% of environmental who did not strongly agree with this statement.

This strong attachment to both Pitlochry and to the "natural environment" having a negative effect on the propensity to tour around sightseeing may suggest that for these tourists, their dominant environmental tourism values and their secondary values are fulfilled by Pitlochry and its environs and they do not feel the need to travel elsewhere. Therefore, for this group Pitlochry may not be easily substituted as a holiday destination.

For the group of "other" tourists to Pitlochry, only two effects of attachment to place or to the "natural environment" were found for the activities, toured around sightseeing (Cramer's V = .24813) and walking (Cramer's V = .25800). Of the "other" tourists to Pitlochry who strongly agreed with the statement *to me, this area*

represents a typical Scottish landscape, 76.9% had been walking, compared with 49.8% of "other" tourists who did not strongly agree with this statement.

As was the case for environmental tourists to Pitlochry, the activity toured around sightseeing was again found to be negatively associated with strong attachment to place. Of the "other" tourists to Pitlochry who strongly agreed with the statement *I am very fond of Pitlochry, it means a lot to me* , 47.3% had toured around sightseeing, compared with 87.0% of "other" tourists who did not strongly agree with this statement. This further supports an interpretation that Pitlochry may not be easily substituted as a holiday destination for these tourists as they do not feel the need to tour around elsewhere to fulfil their tourism values.

Socio- Demographic Characteristics As Determinants Of Attachment To Place

Williams et al (1992) in their study of place attachment amongst visitors to wilderness areas found that only a few socio-demographic characteristics were related to place attachment or attachment to wilderness areas. Higher levels of place attachment were consistently related to lower education and income across all study sites, whilst higher levels of attachment to wilderness were found to be related to higher educational attainment. Higher levels of place attachment were more likely amongst those who had travelled in a group, with friends or family.

The effects of socio-demographics on place attachment amongst tourists to St. Andrews are few (Table 43). Some effects were found for the socio-demographic variables, age and educational attainment. For the group of environmental tourists to St. Andrews, fondness for the town was found to be related to older age of the respondents (Cramer's V = .47424). Of the environmental tourists to St. Andrews, 60.6% of those who were aged 51 and over, strongly agreed that they were very fond of St. Andrews, compared with 39.4% of all other environmental tourists. For the group of "other" tourists, older age was similarly related to the statements *St. Andrews is unique, I wouldn't substitute any other place for the type of things I do here* (Cramer's V = .21422) and *I find that a lot of my holidays are organised around areas of natural beauty* (Cramer's V = .20715). Of the "other" tourists to St. Andrews who were aged 51 and over, 52.4% strongly agreed that *St. Andrews is unique, I wouldn't substitute any other place for the type of things I do here*, compared with 47.6% of all "other" tourists. Of the "other" tourists to St. Andrews who were aged 51 and over, 62.5% strongly agreed that *I find that a lot of my holidays are organised around areas of natural beauty*, compared with 37.5% of all "other" tourists to St. Andrews.

For the group of "other" tourists to St. Andrews, lower educational attainments were found to be associated with higher levels of place attachment, consistent with the findings of Williams et al (1992). Of the "other" tourists to St. Andrews who were educated to higher education standard or below, 59.3% strongly agreed with the statement *St. Andrews is unique, I wouldn't substitute any other place for the type of*

things I do here, compared with 40.7% of "other" tourists who were educated to degree level or above.

Table 43 Crosstabulation Of Socio-Demographic Variables By The Six Place Attachment Statements For Environmental And "Other" Tourists To St. Andrews

	"Environmental" tourists		"Other" tourists	
Socio-demographic characteristics	Age	Educational attainment	Age	Educational attainment
Place attachment statements				
I am very fond of St. Andrews, it means a lot to me	29.01279 .04822 .47424	–	–	–
St. Andrews is a typical Scottish town	–	–	–	–
St. Andrews is unique, I wouldn't substitute any other place for doing the type of things I do here		33.01597 .03360 .43812	47.17722 .00319 .21422	39.28308 .00615 .19548
I find that a lot of my holidays are organised around areas of natural beauty	–	–	44.11178 .00740 .20715	
To me, this area represents a typical Scottish landscape	–	–	–	–

Note: Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

For the group of environmental tourists to St. Andrews, stronger attachment to place was also found to be associated with lower educational attainment. Of the environmental tourists to St. Andrews who were educated to higher education standard or below, 73.3% strongly agreed with the statement *St. Andrews is unique, I wouldn't substitute any other place for the type of things I do here*, compared with 26.7% of all other environmental tourists.

Few differences were found for the effect of socio- demographic variables on levels of place attachment to Pitlochry. The effects that were found were similar to those reported for tourists to St. Andrews and were associated with age, educational attainments and presence of children in the personal group (Table 44).

Most of the effects were found for the age of respondent, which is in contrast to Williams et al (1992) who found no significant effects related to age. Similar to the findings for St. Andrews, strong place attachment amongst both environmental and "other" tourists was found to be associated with older age of the respondent. Of the environmental tourists to Pitlochry who were aged 51 or over, 77.5% strongly agreed with the statement *I am very fond of Scotland, it means a lot to me*, compared with 22.5% of all other environmental tourists. Similarly, of the environmental tourists to Pitlochry who were aged 51 or over, 62.8% strongly agreed with the statement, *To me, this area represents a typical Scottish landscape*, compared with 37.2% of all other environmental tourists.

Table 44 Crosstabulation Of Socio-Demographic Variables By The Six Place Attachment Statements For Environmental And "Other" Tourists To Pitlochry

	"Environmental" tourists			"Other" tourists	
Socio-demographic characteristics	Age	Educational attainment	Presence of children in personal group	Age	Educational attainment
Place attachment statements					
I am very fond of Pitlochry, it means a lot to me	33.27160 .01547 .37952	–	10.55083 .01442 .37017	–	–
Pitlochry is a typical Scottish town	–	35.81893 .01615 .34102	–	–	61.35575 .00000 .26168
Pitlochry is unique, I wouldn't substitute any other place for doing the type of things I do here	–		–	46.44473 .00391 .22767	–
I find that a lot of my holidays are organised around areas of natural beauty	–	–	–	–	32.43922 .03884 .19027
To me, this area represents a typical Scottish landscape	43.53843 .00067 .43414	–	–	58.52890 .00010 .25558	–

Note: Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

Of the "other" tourists to Pitlochry who were aged 51 or over, 60.5% strongly agreed with the statement *Pitlochry is unique, I wouldn't substitute any other place for doing*

the type of things I do here, compared with 39.5% of all "other" tourists. Of the "other" tourists to Pitlochry who were aged 51 or over, 59.9% strongly agreed with the statement, *To me, this area represents a typical Scottish landscape*, compared with 41.1% of all "other" tourists.

For Pitlochry, similar to the findings for St. Andrews, lower educational attainments were found to be associated with higher levels of attachment to place. Of the environmental tourists to Pitlochry, 75.0% who were educated to higher education standard or below, strongly agreed that *Pitlochry is a typical Scottish town*, compared with 29.0% of environmental tourists to the town who were educated to degree level or above. A similar pattern emerged for "other" tourists to Pitlochry, 72.4% of "other" tourists who strongly agreed that *Pitlochry is a typical Scottish town*, were educated to higher education standard or below, compared with 32.9% of "other" tourists to the town who were educated to higher degree standard or above.

In terms of differences in effects of socio-demographic variables on attachment to place and to the "natural environment", differences were found to be insubstantial or absent both between the two principle tourists groups, namely, environmental and "other" tourists' and between the two towns. One exception to this was the effect of the presence of children in the tourists group on place attachment. For the group of environmental tourists, one socio-demographic effect was found for the presence of children in the personal group (Cramer's V = .37017). Of the environmental tourists to Pitlochry who had visited with children in their personal group, 62.5% strongly agreed with the statement *I am very fond of Pitlochry, it means a lot to me*, compared with

37.5% of all other environmental tourists. This is concurrent with the findings of Williams et al (1992) who found that place attachment was higher amongst those visitors who were in a group with friends or family.

Tourism Value Clusters And Place Attachment St. Andrews

Earlier analysis in this chapter has indicated that environmental tourists report greater levels of attachment to both St. Andrews and Pitlochry than do "other" tourists. Cluster analysis carried out in the previous chapters has shown that the two groups of tourists in the present study "environmental" an "other" tourists can be disaggregated into distinct market segment that are distinguishable in terms of their dominant tourism values. It has been shown that these different segments are partly distinguishable by other factors such as socio demographic variables, holiday activities and important destination attributes.

Two statements distinguished between the two environmental tourist value clusters for St. Andrews, *St. Andrews is unique, I wouldn't substitute any other place for doing the type of things I do here* (Cramer's V = .36201) and *I find that a lot of my holidays are organised around areas of natural beauty* (Cramer's V = .38555) (Table 45). As these clusters were not distinguishable in terms of the participation or non participation in holiday activities (Chapter 7), this distinction is of particular interest. The tourism value clusters for tourists to St. Andrews are summarily described in terms of their type of attachment in Table 46.

Table 45 Crosstabulation Of The Six Attachment Statements For Environmental And "Other" Tourists In St. Andrews By Tourism Value Clusters.

	"Environmental" Tourist Segments			"Other" Tourist Segments		
Attachment statements	$\chi 2$=	Sig. at:	Cramer's V=	$\chi 2$=	Sig. at:	Cramer's V=
I am very fond of St. Andrews, it means a lot to me	–	–	–	–	–	–
I love to visit Scotland	–	–	–	–	–	–
St. Andrews is a typical Scottish town	–	–	–	–	–	–
St. Andrews is unique, I wouldn't substitute any other place for doing the type of things I do here	10.09103	.03892	.36201	–	–	–
I find that a lot of my holidays are organised around areas of natural beauty	11.44595	.00954	.38555	–	–	–
To me, this area represents a typical Scottish landscape	–	–	–	–	–	–

Note: Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

Tourist cluster 1 (Environmental Hedonic/Cognitive) was characterised by a greater proportion of environmental tourists who strongly agreed with the statement *St. Andrews is unique, I would not substitute any other place for doing the type of things I do here.* Of the respondents in this cluster, 52.5% strongly agreed with this statement, compared with 36.4% of cluster 2 (Environmental Social/Emotive) tourists to St. Andrews.

Given the dominant cognitive content of the values held by cluster 1, it might be expected that St. Andrews or its environs may be less substitutable to this group, to them St. Andrews is a unique place. Their emotive environmental values *to be closer to nature* and *freedom in wide open spaces* are fulfilled by the natural setting of St. Andrews. Their hedonic values of *fun* and *excitement* are fulfilled through the activities that they engage in there, visiting a funfair, visiting a wildlife attraction. Their cognition dominant values *to learn something interesting, somewhere well known so I can tell my friends and a safe place to holiday are* also fulfilled through a combination of these things; this group is thereby not only attached to "the natural environment,"

but also to St. Andrews as a place. For this group, repeat visits to St. Andrews are very likely.

In contrast, cluster 2 (Environmental Social/Emotive) shows much lower place attachment to St. Andrews but a stronger attachment to the "natural" environment generically. This group was characterised by a greater proportion of tourists who strongly agreed with the statement: *I find that a lot of my holidays are organised around areas of natural beauty.* Of the environmental tourists to St. Andrews in this cluster, 97.3% strongly agreed with this statement compared with 75.0% of environmental tourists in cluster 1. Given the dominant social and emotive values of this cluster, it is not surprising that high levels of place attachment are not indicated. The goals of this group: *to spend quality time with friends and family, to be closer to nature, freedom in wide open spaces* and *to learn something interesting* are dominated by their environmental values. Thus, for this group it would be very important for them to organise tourism around areas of natural beauty. However, also dominant is the value to spend quality time with friends and family. The natural environment for this group facilitates this need for social interaction, acting much as a backdrop rather than as a focus. For this segment it is likely that St. Andrews would easily be substituted for other areas of natural beauty which facilitated social interaction.

However, in contrast, analysis of the place attachment statements for "other" tourists to St. Andrews indicates that the four "other" tourist value clusters derived were not distinguishable in terms of their level of place attachment to St. Andrews or attachment to the natural environment (Table 45). For these "other" tourists, place attachment

Table 46 Tourism Value Clusters For Tourists To St. Andrews Described In Terms Of Their Distinguishing Types Of Attachment To Place, Destination Attributes, Holiday Activities And Socio-Demographic Characteristics

Environmental Tourist Clusters	Dominant Tourism Values	Distinguishing Destination Attributes	Distinguishing Holiday Activities	Type of Attachment	Overall % for Environmental tourists to St. Andrews	Distinguishing Socio-demographic characteristics
Cluster 1 51.9% N=40	HEDONIC / COGNITIVE			(52.5%) strongly agreed that: St. Andrews is unique, I would not substitute any other place for doing the type of things I do here.	36.4%	
Cluster 2 48.1% N=37	SOCIAL / EMOTIVE			(97.3%) strongly agreed that: I find that a lot of my holidays are organised around areas of natural beauty.	75.7%	Parents with children in their personal group
"Other" tourist clusters	**Dominant Tourism Values**	**Distinguishing Destination Attributes**	**Distinguishing Holiday Activities**	**Type of Attachment**	**Overall % for "other" tourists to St. Andrews**	**Distinguishing Socio-demographic characteristics**
Cluster 3 35.4% N=91	HEDONIC / COGNITIVE INNER		Funfair or Themepark			Young, students
Cluster 4 37.7% N=97	PERSONAL / EMOTIVE	The area is good for children I liked it when I have been before The open spaces The attractive, natural setting The quietness The beach is clean I wanted to be by the coast The sandy beach				Parents with children in their personal group
Cluster 5 16% N=41	HEDONIC / COGNITIVE OUTER	The attractive, natural setting.	Art Gallery			Professional, no children in their personal group
Cluster 6 10.9% N=28	DE-EMPHASISERS					Older, male

may be low because their choice of holiday destinations is guided to a great extent by the attributes of a destination and the activities it supports rather than by emotional and affective attachment to a place. As discussed in Chapters 6 and 7 of the present study, unlike environmental tourists, these groups of "other" tourists identified a range of attributes that were important to them when selecting a holiday destination. Destination choice will likely be between a range of places with the desired combination of attributes, these destinations are easily interchangeable and attachment to any particular destination is likely to be low.

Tourism Value Clusters And Place Attachment In Pitlochry

Little association was found between the tourism value clusters and the place attachment statements for environmental tourists to Pitlochry (Table 47). The tourism value clusters for tourists to Pitlochry are summarily described in Table 48.

Table 47 Crosstabulation Of The Six Attachment Statements For Environmental And "Other" Tourists In Pitlochry By Tourism Value Clusters

	"Environmental" Tourist Segments			"Other" Tourist Segments		
Attachment statements	$\chi 2$=	Sig. at:	Cramer's V=	$\chi 2$=	Sig. at:	Cramer's V=
I am very fond of Pitlochry, it means a lot to me	–	–	–	–	–	–
I love to visit Scotland	–	–	–	–	–	–
Pitlochry is a typical Scottish town	–	–	–	–	–	–
Pitlochry is unique, I wouldn't substitute any other place for doing the type of things I do here	–	–	–	23.33417	.02502	.18634
I find that a lot of my holidays are organised around areas of natural beauty	12.43468	.01440	.20359	–	–	–
To me, this area represents a typical Scottish landscape	–	–	–	–	–	–

Note: Significance levels of $\chi 2$ coefficients are shown only where these are < 0.05

For the two environmental tourist clusters to Pitlochry only one attachment statement discriminated: *I find that a lot of my holidays are organised around areas of natural beauty* (Cramer's V = .20359) (Table 51). cluster 2 (Environmental Social/Emotive) was characterised by a greater proportion of tourists who strongly agreed with this statement. Of the environmental tourists to Pitlochry in this cluster, all strongly agreed with this statement, compared with 85.7% of tourists in cluster 1 (Environmental Hedonic/Cognitive).

Clearly, the attachment to the "natural environment" is strong for both these groups as would be expected given their dominant environmental values. However, for cluster 2 (Environmental Social/ Emotive), which also places high importance on the social value *to spend quality time with friends and family*, attachment to "the natural environment" generically is stronger, it is the natural environment and not the specific place that fulfils the dominant environmental values and facilitates social interaction.

As was the case for "other" tourists to St. Andrews, affective attachment to place or to the "natural environment" amongst "other" tourists to Pitlochry was found to be largely absent. These tourists also emphasised the importance of particular attributes of a destination in their choice, and this combination of attributes, rather than any emotional attachment will guide holiday destination choice. One exception was found for these "other" tourists to Pitlochry. For the four "other" tourist clusters to Pitlochry only one statement discriminated, namely, *Pitlochry is unique, I wouldn't substitute any other place for the type of things that I do here* (Cramer's V = .20359).

Table 48 Tourism Value Clusters For Tourists To Pitlochry Described In Terms Of Their Distinguishing Types Of Attachment To Place, Destination Attributes, Holiday Activities And Socio-Demographic Characteristics

Environmental Tourist Clusters	Dominant Tourism Values	Distinguishing Destination Attributes	Distinguishing Holiday Activities	Type of Attachment	Overall % for Environmental tourists to St. Andrews	Distinguishing Socio-demographic characteristics
Cluster 1 65.1% N=28	HEDONIC / COGNITIVE		Camping			
Cluster 2 34.9% N=15	SOCIAL / EMOTIVE		Nature-watching	(100%)strongly agreed that: I find that a lot of my holidays are organised around areas of natural beauty.	88.4%	Parents with children in their personal group
"Other" tourist clusters	**Dominant Tourism Values**	**Distinguishing Destination Attributes**	**Distinguishing Holiday Activities**	**Type of Attachment**	**Overall % for "other" tourists to St. Andrews**	**Distinguishing Socio-demographic characteristics**
Cluster 3 29.0% N=65	HEDONIC / COGNITIVE INNER		Wildlife Attraction Camping			Young, students
Cluster 4 46.9% N=105	PERSONAL / EMOTIVE	The area is good for children I liked it when I have been before. The open spaces The attractive, natural setting The quietness.				Parents with children in their personal group
Cluster 5 12.1% N=27	HEDONIC / COGNITIVE OUTER	The attractive, natural setting. The area is good for walks				Professional, no children in their personal group
Cluster 6 12.1% N=27	DE-EMPHASISERS	I liked it when I have been before		(29.6%) strongly agreed that: Pitlochry is unique, I would not substitute any other place for doing the type of things I do here.	14.3%	Older, male

Cluster 6 (De-emphasisers) was characterised by a disproportionate minority of tourists who strongly agreed with the statement, *Pitlochry is unique, I wouldn't substitute any other place for the type of things that I do here.* Of the tourists to Pitlochry in cluster 6, 29.6% strongly agreed with this statement, compared with 14.3% of the overall sample of "other" tourists to Pitlochry.

Although this cluster was not characterised by any distinguishing values, the destination attribute *I liked it when I have been before* was very important to this group. It would seem then that place attachment to Pitlochry is high for this group, not necessarily as a function of values but rather as a function of habit, shown through the older age group of this segment, over half were aged 60 years or over. This group are probably habitual visitors to Pitlochry and may be reluctant to try new and unfamiliar places. A similar finding was reported by Williams et al (1992) who found that place attachment was higher amongst repeat visitors to a place and that these visitors were less likely to substitute place.

Summary

This chapter has examined the effect of affective attachment to place and to a class of places i.e. the "natural environment" on the holidaymaking behaviour of tourists to St. Andrews and Pitlochry. Some significant findings have emerged.

Firstly, attachment to place and to the "natural environment" has been found to be stronger amongst tourists holding strong environmental values, this finding is echoed

elsewhere in the literature (Williams et al, 1992) and is generic across both survey towns. Secondly, however, situational (between town) differences in the levels of attachment to place or to the "natural environment" existed and were found to be reflected by the main focus of the tourists' interaction with the two towns. Generally, affective attachment to place and to the "natural environment" was found to be greater amongst the tourists' whose main focus was on the activities that the place and the setting (natural environment) facilitated. Strong attachment to the "natural environment" was found to be greater amongst tourists who focused mainly on the natural setting itself, relative to any other aspects of the tourist experience.

Comparison between the two sites clearly shows that place attachment and attachment to the "natural environment" is stronger amongst both environmental and "other" tourists to Pitlochry. In contrast to Williams et al (1992), activity focused visitors to Pitlochry show strong place attachment scores and strong attachment to "natural environment" scores. For visitors to Pitlochry it appears that activities engaged in are those which are facilitated by the setting; walking, camping, naturewatching and sightseeing are the most popular activities amongst both sets of tourists to the area. Similar findings that place endearment is effected through generalist activities have been reported by Prentice et al, (1994). As might be expected, given this demonstrated strength of place attachment, the activity toured around sightseeing was negatively associated with strong place attachment. This further supports the finding that Pitlochry or a similar Scottish environment may be less substitutable to these tourists, their fondness of Pitlochry and their belief that the Tay Valley area represents

a typical Scottish landscape indicates that they do not feel the need to tour around visiting other places, as Pitlochry fulfils their tourism needs and dominant values.

Consistent with the findings of Williams et al (1992) environmental visitors to St. Andrews were distinctive by their strong attachment to the "natural environment" due to their lack of focus on holiday activities. Strong levels of affective attachment to place was absent amongst these tourists. Likewise, when disaggregated into segments, a similar effect was found for environmental tourists in cluster 2 visiting Pitlochry (Environmental Social/ Emotive), which also places high importance on the social value *to spend quality time with friends and family*. This may suggest that these tourists are not attached to St. Andrews or Pitlochry as specific places, or for their "natural environment" but rather to attractive, natural environments generically, easily interchangeable with other attractive, natural environments as holiday destinations that will fulfil the dominant environmental values of this group and facilitate social interaction.

Weak levels of attachment to place and to the "natural environment" were found for the environmental tourists to St. Andrews who reported engaging in a number of activities. These activities were found to be those which are not generally associated with environmental or ecotourists in past research, and were also not particularly facilitated by an attractive natural environment but were unique to St. Andrews. When disaggregated into segments, this uniqueness was found to result in stronger place attachment amongst environmental tourists in cluster 1 (Environmnetal Hedonic Cognitive.) This segment of tourists may feel that St. Andrews is unique and not easily

substitutable as a holiday destination because it fulfils their hedonic values (*fun* and *excitement*) through the unique activities that they engage in there and their environmental values through the attractive natural setting of the town.

The group of "other" tourists to St. Andrews were found to have a strong activity focus but, in contrast to the findings of Williams et al (1992) they also showed a strong level of attachment to place and to a lesser extent to the "natural environment". Attachment to place amongst these tourists appears to be related to an attachment to Scotland generally and an attachment to St.Andrews as a unique place where they can participate in some "unique" activities which can not be experienced in the same way elsewhere, namely, visiting a funfair and leisure shopping. For this group of tourists, it may be St. Andrews, as a specific place that it is important and less substitutable as a holiday destination, as the attachment of these tourists is, at least in part, based on the perceived "unique" ability of the town to facilitate their activity goals. The segmentation on the basis of type and level of attachment to place or to the "natural environment" was not found to be particularly discriminating among the four segments of "other" tourists to either town.

The extent of substitutability of a place pertains in the discussion throughout this chapter. For the tourists visiting these two towns who consider Pitlochry and St.Andrews to be unique and not easily substitutable as a holiday destination, the suggestion is not that they would not go elsewhere. Rather, it implies that these visitors are likely to have visited the place before and that repeat visits are more likely amongst these tourists.

CHAPTER 9

CONCERN FOR THE TOURISM ENVIRONMENT OF ST. ANDREWS AND PITLOCHRY AMONGST ENVIRONMENTAL AND "OTHER" TOURISTS

Affective Attachment To Place And The "Natural Environment" And Environmental Concern

It has been suggested by Williams et al (1992) that tourists who show strong levels of attachment to place or a class of places i.e. wilderness, will show more concern about how that particular environment is used and will be more sensitive to issues occurring in that environment that are in conflict with their immediate goals. For example, Williams et al (1992) found that tourists who were strongly attached to wilderness areas and specific places showed greater concern for ecological impacts. In addition, visitors reporting high levels of wilderness attachment were found to be more concerned about site and sound intrusions and encounters with hikers. This is an area of potential interest to the present study. It has been shown in the previous chapter that environmental tourists, grouped on the basis of their dominant environmental values, have stronger levels of attachment to place and to the "natural environment" and that this level and type of attachment will, to some extent influence the activities carried out in these places, i.e. how the tourism environment is used. However, what is not clear from this analysis is whether tourism values and the type and level of attachment have an effect on the level of concern and awareness about the impact and environment that these tourists are attached to.

In common with Williams et al (1992), the present study used eight questions related to the environmental impacts of tourism in the immediate area. These statements were derived from the results of the qualitative survey examining the issues that were of most concern to tourists in their tourism environment and are discussed in Chapter 2 of

the present study. The questions were rated on a five point Likert scale ranging from "strongly agree" to "strongly disagree". The areas of environmental concern statements used for the question included were: *I cannot do anything significant to solve environmental problems; New leisure and tourist attractions should be encouraged in this area so that people can have fun and enjoyment here; The number of new tourist and leisure developments should be severely restricted if the area is to be kept unspoilt; More car parking facilities should be provided in this area for the convenience of visitors here; Tourists to this area should be encouraged to travel by public transport to keep the area free from congestion and fumes; The use of cars in this area should be restricted to keep it unpolluted; Golf courses allow people to enjoy sport in beautiful surroundings; The development of golf courses wastes huge amounts of natural resources such as water and agricultural land.*

The statements were not presented in this order, but rather were organised so that contradictory statements were not asked sequentially. Similar measures of areas of concern about the impacts on the environment of tourists and tourism have been carried out but these generally focus on residents' attitudes towards the impact of tourism on the area and visitor attitudes to policy instruments for visitor funding of tourism areas (For example, Bramwell and Fearn, 1996; Cawley, 1994).

Analysis of the eight environmental concern statements for both environmental and "other" tourists who reported strong attachment to place show extensive though

individually weak effects as indicated by the Cramer's V strength of association coefficients (Table 49).

Six statements were found to be discriminating in terms of personal tourism values and level of attachment to place. As might be expected, environmental tourists, irrespective of level of place attachment were less likely to agree with the statement *I cannot do anything significant to solve environmental problems* than "other tourists" (Cramer's V = .11617). Of all the environmental tourists, both attached and not attached to place, only 12.4% strongly agreed with this statement, compared with 20.0% of all "other" tourists. However, strong agreement with this statement was found to be generally low amongst both groups of tourists.

Similarly, environmental tourists irrespective of the level of place attachment were more likely to be in agreement with restrictive tourism measures. For the statement *The number of new tourist and leisure developments should be severely restricted if the area is to be kept unspoilt* (Cramer's V = .132122), 89.8% of environmental tourists strongly agreed, compared with 49.1% of "other" tourists. Of the environmental tourists, 65.4% strongly agreed that *The use of cars in this area should be restricted to keep it unpolluted* (Cramer's V = .10869), compared with 38.0% of "other" tourists. Similarly, of the environmental tourists, 70.0% strongly agreed that *Tourists to this area should be encouraged to travel by public transport to keep the area free from congestion and fumes* (Cramer's V = .11137), compared with 47.1% of "other" tourists.

Table 49 Crosstabulation Of The Eight Environmental Concern Statements For Tourists Strongly Attached To Place

	"Environmental" tourist		"Other" tourists		χ^2 statistics		
	Place attached	Not place attached	Place attached	Not place attached	χ^2=	Sig. at:	Cramer's V=
	Strongly agree %	Strongly agree %	Strongly agree %	Strongly agree %			
Environmental Problems							
I cannot do anything significant to solve environmental problems	6.6	5.8	9.8	10.2	32.44313	.00875	.11617[1]
Tourism Development							
New leisure and tourist attractions should be encouraged in this area so that people can have fun and enjoyment here	34.7	18.7	33.4	27.6	34.68243	.00439	.12011
The number of new tourist and leisure developments should be severely restricted if the area is to be kept unspoilt	44.9	44.9	25.0	24.1	41.39469	.00049	.132122
Traffic Congestion And Pollution							
More car parking facilities should be provided in this area for the convenience of visitors here.	26.5	8.7	18.8	12.6	31.04768	.01327	.11364
Tourists to this area should be encouraged to travel by public transport to keep the area free from congestion and fumes	36.7	33.3	23.3	23.8	29.81985	.01896	.11137
The use of cars in this area should be restricted to keep it unpolluted	28.6	34.8	20.0	18.0	28.39788	.02833	.10869
Resource Use							
Golf courses allow people to enjoy sport in beautiful surroundings	38.8	32.0	41.7	33.0	–	–	–[1]
The development of golf courses wastes huge amounts of natural resources such as water and agricultural land	24.5	20.3	19.2	15.1	–	–	–

Note: Significance levels of χ^2 coefficients are shown only where these are < 0.05

In contrast, some contradictory effects were found for environmental tourists who were strongly attached to place but were supportive of the idea of new development in the area. Of the environmental tourists who were attached to place, 34.7% strongly agreed that *New leisure and tourist attractions should be encouraged in this area so that people can have fun and enjoyment here* (Cramer's V = .12011), compared with 18.7% of environmental tourists who were not attached to place. Of the environmental tourists who were strongly attached to place, 26.5% strongly agreed that *more car parking facilities should be provided in this area for the convenience of visitors here*

(Cramer's V = .11364), compared with 8.7% of environmental tourists who were not attached to place. Similar, though not such pronounced effects were found for the group of "other" tourists, 18.8% of "other" tourists attached to place strongly agreed with the provision of more parking facilities, compared with 12.6% of "other" tourists who were not attached. "Other" tourists who reported strong levels of attachment to place were also slightly more likely to be supportive of the notion of new tourist developments in the area, 33.4% strongly agreed with this statement, compared with 27.6% of "other" tourists who were not attached to place.

From this analysis, it is clear that strong levels of place attachment do have an effect on tourists' level of concern for the immediate environment. Amongst environmental tourists, where attachment to place was found to be strong, strong support was found for the development of new tourist facilities in the area, leisure attractions and car parking facilities. For these tourists, although they hold strong environmental values, it has been shown in the analysis of previous chapters that environmental tourists are not a homogeneous subgroup of tourists but that they also hold other values, in particular the hedonic values of *fun* and *excitement, to relax and unwind* and *to spend quality time with friends and family*. This would suggest that their personal tourism values are in conflict when they are strongly attached to place and the conflict is resolved in favour of the hedonic values. It may be, as suggested by Burningham and O'Brien (1994) that their value for the environment and how it is used depends on their dominant goals in the immediate tourism context. Segmentation carried out in the previous chapters has shown that the two principal groups of tourists in the present study, namely "environmental" and "other" tourists can be disaggregated into distinct

market segments that are distinguishable in terms of their dominant tourism values. It would be of interest to examine whether the level of concern about different issues is associated with particular groups of tourists holding distinct dominant tourism values, within the main twofold classification developed in this work.

Analysis of the eight environmental concern statements for both environmental and "other" tourists who reported strong attachment to the "natural environment" show extensive though individually weak effects, as indicated by the Cramer's V strength of association coefficients (Table 50).

Six statements were found to be discriminating in terms of personal tourism values and level of attachment to the "natural environment". As with environmental tourists and place attachment, here again, as might be expected, environmental tourists were less likely to agree with the statement *I cannot do anything significant to solve environmental problems* (Cramer's V = .11048). Of the environmental tourists, 11.4% strongly agreed with this statement, compared with 21.0% of "other" tourists. In contrast to the findings related to place attachment, here, both environmental and "other" tourists who reported strong levels of attachment to the "natural environment" were more likely to agree with restrictive measures to manage tourism. However, environmental tourists again, generally showed stronger support for these measures. The area of most concern for both environmental and "other" tourists were related to traffic congestion and fumes. Of the environmental tourists who strongly agreed that *Tourists to this area should be encouraged to travel by public transport to keep the area free from congestion and fumes* (Cramer's V = .11584), 39.3% were strongly

attached to the "natural environment" and 33.7% were not attached, compared with 24.2% of "other" tourists who were strongly attached to the "natural environment" and 23.3% who were not attached. Similarly, strong levels of support were found amongst environmental tourists attached to the "natural environment" for the statement *The use of cars in this area should be restricted to keep it unpolluted*(Cramer's V = .12860),

Table 50 Crosstabulation Of The Eight Environmental Concern Statements For Tourists Strongly Attached To The "Natural Environment"

	"Environmental" tourist		"Other" tourists		χ^2 statistics		
	Attached to *natural environment*	Not Attached to *natural environment*	Attached to *natural environment*	Not Attached to *natural environment*	χ^2=	Sig. at:	Cramer's V=
	Strongly agree %	Strongly agree %	Strongly agree %	Strongly agree %			
Environmental Problems							
I cannot do anything significant to solve environmental problems	5.3	6.1	9.8	11.2	22.00581	.03745	.11048
Tourism Development							
New leisure and tourist attractions should be encouraged in this area so that people can have fun and enjoyment here	10.7	12.8	14.9	22.8	–	–	–
The number of new tourist and leisure developments should be severely restricted if the area is to be kept unspoilt	45.7	31.3	25.2	18.3	31.71075	.00153	.13262
Traffic Congestion And Pollution							
More car parking facilities should be provided in this area for the convenience of visitors here.	3.6	13.0	15.5	20.7	25.35503	.01323	.11859
Tourists to this area should be encouraged to travel by public transport to keep the area free from congestion and fumes	39.3	33.7	24.2	23.3	24.19389	.01914	.11584
The use of cars in this area should be restricted to keep it unpolluted	46.4	28.3	26.3	18.7	29.81626	.00298	.12860
Resource Use							
Golf courses allow people to enjoy sport in beautiful surroundings	32.6	32.8	37.9	39.3	–	–	–
The development of golf courses wastes huge amounts of natural resources such as water and agricultural land	35.9	19.5	18.3	7.1	27.75883	.00600	.12408

Note: Significance levels of χ^2 coefficients are shown only where these are < 0.05

46.4% of strongly attached environmental tourists agreed with this statement compared with 28.3% of those who were not attached to the natural environment. Agreement with this statement was comparatively slightly less amongst "other" tourists, although still stronger amongst those who were strongly attached to the "natural environment", 26.3% of these "other" tourists strongly agreed with restricting car use, compared with 18.7% of "other" tourists who were not strongly attached to the "natural environment".

Environmental tourists attached to the "natural environment" were also much more likely to agree that *The number of new tourist and leisure developments should be severely restricted if the area is to be kept unspoilt* (Cramer's V = .13262). Of these attached environmental tourists, 45.7% strongly agreed with this statement compared with 31.3% of environmental tourists who were not attached to the "natural environment". Of the "other" tourists, 25.2% of those attached to the "natural environment" and 18.3% of those not attached, strongly agreed that tourism development should be restricted in the area.

Environmental tourists who were attached to the "natural environment" also seemed to be more aware of the less immediate and obvious effects of some types of tourism developments and resource use. Of the environmental tourists who were attached to place, 35.9% strongly agreed that *The development of golf courses wastes huge amounts of natural resources such as water and agricultural land* (Cramer's V = .12408), compared with 19.5% of environmental tourists who were not attached. Of

the group of "other" tourists, 18.3% of those attached to the "natural environment" and 7.1% of those not attached, strongly agreed with this statement.

Burningham and O'Brien (1994) in their study of environmental values have suggested that is the goals of the individual in the immediate context, here that is landscape tourism, that will effect how the environment is valued and used. From discussion and analysis in the previous chapters of the present study, it has been shown that the goals of tourists are reflected by their tourism values. It would appear from the analysis of tourism values and concern for the immediate environment that tourism values do indeed have an effect on awareness of environmental issues and concern for the environment. Those tourists holding strong environmental values display greater awareness of the wider issues relating to the impact of tourism on the environment and are generally more supportive of restrictive measures on tourism development. However, it would also appear that levels of place attachment and attachment to the "natural environment" also have an affect on how the environment is valued by tourists. Strong levels of attachment to the "natural environment" amongst both environmental and "other" groups of tourists seems to result in increased concern and awareness of environmental issues, this effect, as might be expected, is stronger amongst tourists with strong environmental values, concern was found to be strongest about issues relating to traffic congestion and the negative effect of tourism development on the "natural environment". These results are concurrent with the findings of Williams et al (1992), who reported that sensitivity and concern amongst tourists displaying strong attachment to wilderness was found to be related to ecological impacts and overcrowding / site congestion issues.

Tourism Value Clusters And Environmental Concern In St. Andrews

Analysis of the eight environmental concern statements for the environmental and "other" tourists value clusters for St. Andrews indicates that the clusters were found to be distinguishable to some extent on the basis of concern for their immediate environment (Table 51). The tourism value clusters for tourists to St. Andrews are summarily described in Table 52.

One statement was found to distinguish between the two environmental clusters of tourists to St. Andrews. Cluster 1 (Environmental Hedonic/ cognitive) was found to be characterised by a greater proportion of tourists who were in strong agreement that *New leisure and tourist attractions should be encouraged in this area so that people can have fun and enjoyment here* (Cramer's V = .20495). Of the tourists to St. Andrews in this cluster, 49.5% strongly agreed with this statement, compared to 33.4% of the tourists in cluster 2 (Environmental Social/Emotive). In Chapter 8 of the present study, this cluster was shown to be strongly attached to St. Andrews. These tourists feel that St. Andrews is unique and not easily substitutable as a holiday destination because it fulfils their dominant values; their emotive, environmental values (*to be closer to nature, freedom in wide open spaces* and *to learn something interesting*) are fulfilled by the natural setting of St. Andrews. Their hedonic values (*fun* and *excitement*) are fulfilled through the activities that they engage in there.

Table 51 Crosstabulation Of The Eight Environmental Concern Statements For Environmental And "Other" Tourists In St. Andrews By Tourism Value Clusters

	"Environmental" Tourist Segments			"Other" Tourist Segments		
Environmental concern statements	$\chi 2$=	Sig. at:	Cramer's V=	$\chi 2$=	Sig. at:	Cramer's V=
Environmental Problems						
I cannot do anything significant to solve environmental problems	–	–	–	–	–	–
Tourism Development						
New leisure and tourist attractions should be encouraged in this area so that people can have fun and enjoyment here	20.68703	.00037	.20495	14.57662	.02648	.16247
The number of new tourist and leisure developments should be severely restricted if the area is to be kept unspoilt	–	–	–	–	–	–
Traffic Congestion and Pollution						
More car parking facilities should be provided in this area for the convenience of visitors here.	–	–	–	13.06173	.00450	.24202
Tourists to this area should be encouraged to travel by public transport to keep the area free from congestion and fumes	–	–	–	–	–	–
The use of cars in this area should be restricted to keep it unpolluted	–	–	–	–	–	–
Resource Use						
Golf courses allow people to enjoy sport in beautiful surroundings	–	–	–	–	–	–
The development of golf courses wastes huge amounts of natural resources such as water and agricultural land	–	–	–	–	–	–

Note: Significance levels of $\chi 2$ coefficients are shown only where these are <0.05

Their cognition dominant values are also fulfilled through a combination of these things; this group is thereby not only attached to "the natural environment," but also to St. Andrews as a place. However, Given their support for new development in the area, their attachment to the "natural environment" and St. Andrews would seem to be for its ability to facilitate their enjoyment, the hedonic values of fun and excitement would seem to be the dominant tourism values (or tourism goals (Burningham and O'Brien, 1994)) amongst this group.

Similarly, for the group of "other" tourist value clusters, Cluster 3 (Hedonic/Cognitive Inner) was also found to be characterised by a high proportion of tourists who were

supportive of the notion that *New leisure and tourist attractions should be encouraged in this area so that people can have fun and enjoyment here* (Cramer's V = .16247). Of the tourists in cluster 3, 55.7% strongly agreed with new development in the area, compared with 35.7% of the overall sample of "other" tourists to St. Andrews. This group were also found to hold dominant hedonic values of *fun* and *excitement* but were not found to be distinguishable in terms of their attachment to place or to the "natural environment". For this group of tourists then, it is likely that holiday destinations are easily interchangeable provided they fulfil these hedonic values. They are not concerned about the impact of tourism on the area due to their lack of attachment and this interchangeability of destinations.

One other environmental concern statement which was found to be discriminating amongst the groups of "other" tourists was *More car parking facilities should be provided in this area for the convenience of visitors here* (Cramer's V = .24202). Cluster 4 (Personal/Emotive) was found to be characterised by a greater proportion of tourists who strongly agreed with this statement. Of the tourists to St. Andrews in cluster 4, 48.6% agreed with the provision of more parking facilities, compared with 26.6% of the overall sample of "other" tourists to St. Andrews. This group was found to be distinguishable by the importance placed on the emotive values *to relax and unwind, no hassle*, and *to spend quality time with friends and family*, reflecting the need for a comfortable life. Their support for more facilities which would make their holiday easier and give them more time to spend with friends and family would seem to be influenced by these dominant emotional values. This group were not found to be attached to place or to the "natural environment". For them, settings would be easily substitutable as long as those places fulfilled and facilitated social interaction.

Table 52 Tourism Value Clusters For Tourists To St. Andrews Described In Terms Of Their Distinguishing Types Of Attachment To Place, Level Of Concern For Their Tourism Environment, Destination Attributes, Holiday Activities And Socio-Demographic Characteristics

Environmental Tourist Clusters	Dominant Tourism Values	Distinguishing Destination Attributes	Distinguishing Holiday Activities	Type of Attachment	Overall % for Environmental tourists to St. Andrews	Concern for the tourist environment	Overall % for Environmental tourists to St. Andrews	Distinguishing Socio-demographic characteristics
Cluster 1 51.9% N=40	HEDONIC / COGNITIVE			(52.5%) strongly agreed that: *St. Andrews is unique, I would not substitute any other place for doing the type of things I do here.*	36.4%	(49.5%) supportive of new tourism development in the area	35.4%	
Cluster 2 48.1% N=37	SOCIAL / EMOTIVE			(97.3%) strongly agreed that: *I find that a lot of my holidays are organised around areas of natural beauty.*	85.7%			Parents with children in their personal group
"Other" tourist clusters	**Dominant Tourism Values**	**Distinguishing Destination Attributes**	**Distinguishing Holiday Activities**	**Type of Attachment**	**Overall % for "other" tourists to St. Andrews**	**Concern for the tourist environment**	**Overall % for "other" tourists to St. Andrews**	**Distinguishing Socio-demographic characteristics**
Cluster 3 35.4% N=91	HEDONIC / COGNITIVE INNER		Fuhfair or Themepark					Young, students
Cluster 4 37.7% N=97	PERSONAL / EMOTIVE	The area is good for children I liked it when I have been before The open spaces The attractive, natural setting The quietness The beach is clean I wanted to be by the coast The sandy beach				(55.7%) Supportive of development of more parking spaces in area	35.7%	Parents with children in their personal group
Cluster 5 16% N=41	HEDONIC / COGNITIVE OUTER	The attractive, natural setting.	Art Gallery					Professional, no children in their personal group
Cluster 6 10.9% N=28	DE-EMPHASISERS							Older, male

Tourism Value Clusters And Environmental Concern In Pitlochry

Analysis of the eight environmental concern statements for the environmental and "other" tourists value clusters for Pitlochry indicates that the clusters were found to be distinguishable to some small extent on the basis of concern for their immediate environment (Table 53). The tourism value clusters for tourists to Pitlochry are summarily described in Table 54.

Table 53 Crosstabulation Of The Eight Environmental Concern Statements For Environmental And "Other" Tourists In Pitlochry By Tourism Value Clusters

	"Environmental" Tourist Segments			"Other" Tourist Segments		
Environmental concern statements	$\chi 2$=	Sig. at:	Cramer's V=	$\chi 2$=	Sig. at:	Cramer's V=
Environmental Problems						
I cannot do anything significant to solve environmental problems	–	–	–	28.56107	.00003	.24996
Tourism Development						
New leisure and tourist attractions should be encouraged in this area so that people can have fun and enjoyment here	–	–	–	24.67354	.00035	.21873
The number of new tourist and leisure developments should be severely restricted if the area is to be kept unspoilt	11.51867	.01436	.20341	–	–	–
Traffic Congestion and Pollution						
More car parking facilities should be provided in this area for the convenience of visitors here.	–	–	–	–	–	–
Tourists to this area should be encouraged to travel by public transport to keep the area free from congestion and fumes	–	–	–	–	–	–
The use of cars in this area should be restricted to keep it unpolluted	–	–	–	–	–	–
Resource Use						
Golf courses allow people to enjoy sport in beautiful surroundings	–	–	–	–	–	–
The development of golf courses wastes huge amounts of natural resources such as water and agricultural land	–	–	–	–	–	–

Note: Significance levels of $\chi 2$ coefficients are shown only where these are <0.05

One environmental concern statement was found to discriminate between the two environmental tourist value clusters. Cluster 2 (Environmental Social/Emotive) was

found to be distinguishable by a greater proportion of tourists who were in strong agreement that *The number of new tourist and leisure developments should be severely restricted if the area is to be kept unspoilt* (Cramer's V = .20341). Of the tourists to Pitlochry in cluster 2(Environmental Social/Emotive), 49.5% strongly agreed with restricting development in the area, compared with 33.4% of environmental tourists in cluster 1(Environmental Hedonic/Cognitive). Cluster 2, has been found to be strongly attached to the "natural environment" (Chapter 8), therefore it is not surprising that the environmental tourists within it, should be more aware of the impact of new development. This is a finding supported by Williams et al (1992), who also noted that tourists that exhibited strong wilderness attachment would be likely to be more sensitive to ecological impacts.

For the four "other" tourist value clusters for Pitlochry, two environmental concern statements were found to be discriminating. Cluster 4 (Personal/ Emotive) was found to be characterised by a greater proportion of tourists who were supportive of the statement *New leisure and tourist attractions should be encouraged in this area so that people can have fun and enjoyment here.* Of the tourists to Pitlochry in cluster 4, 60.8% strongly agreed with new tourism developments in the area, compared with 45.5% of the overall sample of "other" tourists to Pitlochry. This is similar to findings for the group of tourists to St. Andrews holding the same values. Dominant values amongst the tourists in this cluster are those relating to a comfortable life and warm relationships with others: *To spend quality time with friends and family, to relax and unwind, no hassle.* Support for additional facilities can be seen as influenced by these values, more tourism facilities would facilitate the social interaction valued by this

group and make their holiday "life" more comfortable. In common with the tourists holding the same values and visiting St. Andrews, this group were not found to be attached to place or to the "natural environment". For them, settings would be easily substitutable as long as those places fulfilled and facilitated social interaction.

Cluster 6 (De-emphasisers) were found to be characterised by a greater proportion of tourists who were in strong agreement with the statement *I cannot do anything significant to solve environmental problems* (Cramer's V = .24996). Of the tourists to Pitlochry in this cluster, 32.3% strongly agreed that they could not do anything significant, compared with 11.3% of the overall sample of "other" tourists to Pitlochry. This group were found to be strongly attached to Pitlochry by the fact that they were habitual visitors. Place attachment to Pitlochry was found to be high for this group, not necessarily as a function of values but rather as a function of habit, shown through the older age group of this segment, over half were aged 60 years or over. Similarly, this feeling of helplessness or weak concern for the environment are probably a function of age and habit rather than values.

Table 54 Tourism Value Clusters For Tourists To Pitlochry Described In Terms Of Their Distinguishing Types Of Attachment To Place, Level Of Concern For Their Tourism Environment, Destination Attributes, Holiday Activities And Socio-Demographic Characteristics

Environmental Tourist Clusters	Dominant Tourism Values	Distinguishing Destination Attributes	Distinguishing Holiday Activities	Type of Attachment	Overall % for Environmental tourists to St. Andrews		Overall % for Environmental tourists to St. Andrews	Distinguishing Socio-demographic characteristics
Cluster 1 65.1% N=28	HEDONIC / COGNITIVE		Camping					
Cluster 2 34.9% N=15	SOCIAL / EMOTIVE		Nature-watching	(100%)strongly agreed that: *I find that a lot of my holidays are organised around areas of natural beauty.*	88.4%	(49.5%) strongly agree that new tourism development should be severely restricted		Parents with children in their personal group
"Other" tourist clusters	**Dominant Tourism Values**	**Distinguishing Destination Attributes**	**Distinguishing Holiday Activities**	**Type of Attachment**	**Overall % for "other" tourists to St. Andrews,**	**Concern for the tourist environment**	**Overall % for "other" tourists to St. Andrews**	**Distinguishing Socio-demographic characteristics**
Cluster 3 29.0% N=65	HEDONIC / COGNITIVE INNER		Wildlife Attraction Camping					Young, students
Cluster 4 46.9% N=105	PERSONAL / EMOTIVE	The area is good for children I liked it when I have been before. The open spaces The attractive, natural setting The quietness				(60.8%) supportive of new tourism development in the area	45.5%	Parents with children in their personal group
Cluster 5 12.1% N=27	HEDONIC / COGNITIVE OUTER	The attractive, natural setting. The area is good for walks						Professional, no children in their personal group
Cluster 6 12.1% N=27	DE-EMPHASISERS	I liked it when I have been before		(29.6%) strongly agreed that: *Pitlochry is unique, I would not substitute any other place for doing the type of things I do here.*	14.3%			Older, male

Summary

This chapter has examined the effect of affective attachment to place and to a class of places i.e. the "natural environment" on the concern expressed by tourists for their immediate tourism environment of St. Andrews and Pitlochry. Some significant findings have emerged.

From the analysis in the previous chapter, it is clear that tourism values do have an effect on why a place or class of places are valued; tourists are attached to place or a class of places because of the ability of the setting to fulfil their dominant tourism values. It emerges from this analysis in this chapter, that these values as current in the immediate tourism context and situation, do have an effect on how the environment is valued i.e. the concern that tourists show for their immediate environment. It has been suggested (Butler, 1990), that whilst in principle most people are probably supportive of the concept of sustainable tourism, in reality, the timescales of tourists are short and it cannot be expected that they will be too interested in their long term impacts when on holiday. It would appear from this analysis in this chapter, that hedonic values such as *fun* and *excitement* and social values such as *to spend quality time with friends and family* are dominant in a landscape tourism context, despite the prevalence of environmental values, and that it is these dominant hedonic and social values that tourists seek to satisfy, above all others. This suggestion of value conflicts is apparent from the analysis in this chapter. It is clear that there is some conflict between valuing the environment and fulfilling holiday values. This conflict will be resolved on the basis of the interaction of these values and the relative ordering of importance of values as

goals in the immediate context. The resolution of this value conflict will effect the level of concern for the immediate environment and how the environment is used. This has important implications for tourism managers as support for sustainable tourism strategies are increasingly consumer (tourist) focused and cannot be successful or effective without the support of the users of the tourism environment. Tourism managers and marketers are recommended to identify and promote the existing amenities or activities in a destination to appeal to both the hedonic values of *fun* and *excitement* held by tourists and their interacting environmental values. The satisfaction of the emotion dominant, hedonic values will increase the likelihood of repeat behaviour, i.e. repeat visits. In contrast to transient visiting, attachment to place through repeat visiting may lead to concern for that place (Prentice, 1997a). Compounding this, the satisfaction of the emotion dominant, environmental values, *to be closer to nature* and *freedom in wide open spaces*, and the cognition dominant, environmental value *to learn something interesting*, can help to strengthen the attitudes of an individual that a particular destination is less substitutable and so, increase concern for its use.

CHAPTER 10

MODELLING TOURISTS' VALUES AND HOLIDAY ACTIVITIES

Hierarchical Log Linear Models Of Tourism Value Variables And Holidaymaking Behaviour

If values are simultaneously multiple, interactive (compounding or conflicting) and context specific, detailed examination of the level at which they compound or conflict is needed if we are to fully understand their effect on behaviour. The chi square test is essentially limited to bivariate analysis. It can be used to test the direct independence of the variables involved and to obtain an estimate of the contribution of the individual cells to the overall result. However, this test does not allow examination of the interaction between multiple dependent variables and their interactive effect on a positive or negative response.

In order to take a more systematic approach to the examination of the relationship between variables a multivariate technique is needed. Loglinear analysis is considered to be the most appropriate non parametric approach to analysis in these circumstances as it allows the clarification and elaboration of hypotheses suggested by the bivariate analysis and permits the examination of the complex relationships between variables at all levels in a multiway crosstabulation.

Background To Loglinear Modelling

Loglinear models are a special class of statistical techniques that have been formulated for the analysis of categorical and some ordinal data (Haberman, 1978; Bishop, 1975; Norusis, 1994). These models are potentially useful for examining the often complex

relationships in a multiway crosstabulation. A loglinear model may be defined as defined as " a statement of the expected cell frequencies of a crosstabulation as functions of parameters representing characteristics of the categorical variables and their relationships with each other" (Knoke and Burke, 1980). To obtain a linear model, the frequency counts in each cell are converted to natural log form (Log_e or Ln), the natural logs of the cell frequencies rather than the actual counts are used. These values are used to obtain a maximum likelihood value statistic which can be used to test independence.

Goodness of fit of a loglinear model is assessed by examining the extent to which the expected frequencies of the model (F_{ij}) are close to the frequencies actually observed (F_{ij}) (Knoke and Burke, 1980). They differ from multiple regression models not only in the type of data manipulated; In loglinear models, all variables that are used for classification are independent variables, and the dependent variable is the number of cases in the cell of the crosstabulation (Norusis, 1994). In contrast, regression analysis explores the relationship between a dependent variable and a set of independent variables.

As the general loglinear model does not make a distinction between independent and dependent variables, all of the variables in the model are treated as "response variables" and the relationships between them are explored.

There are two types of loglinear models, saturated and unsaturated. A fully saturated model is one which contains all the possible variables affecting the results in the

analysis. In this model all the variables are allowed to effect each other by interacting together, that is, every variable is influenced by every other variable.

The saturated loglinear model for a 2 x 2 crosstabulation (the bivariate analysis used throughout the present study) is noted as:

$$\text{Ln (Fij)} = \mu + \lambda_i^a + \lambda_j^b + \lambda_{ij}^{ab}$$

Fij is the observed frequency in a cell. The log of the expected frequency is a constant (μ) to which is added the terms from each variable ($\lambda_i^a + \lambda_j^b$) and their interaction (λ_{ij}^{ab}). The term μ denotes the average of the logs of the frequencies in all table cells. The lambda "effect" parameters represent the increase or decrease from the base value (μ) for particular combinations of values of the row and column variables. i.e. the effects which the variables have on the cell frequencies: λ_i^a is the effect of *i*th category of variable ***a*** λ_i^b is the effect of *i*th category of variable ***b*** and λ_{ij}^{ab} is the effect of the interaction of the *i*th category of the ***a*** variable and the *j*th category of variable ***b*** (Norusis, 1994; Knoke and Burke, 1980).

The lambda parameters and μ are estimated from the data. The term μ denotes the average of the logs of the frequencies in all table cells. The lambda parameters are obtained by taking the average log of the frequencies in a particular category and subtracting μ. Positive values of lambda occur when the average number of cases in a row or column is larger than the overall average. For example, if the majority of people in the sample had camped on holiday, rather than not camped, the lambda for *camped*

would be positive. Similarly, if fewer people did not hold environmental values than did hold environmental values, the lambda for *not environmental* would be negative.

The interaction of the lambda effect parameters are an indication of the extent of the difference between the sums of the effects of the variables taken individually and collectively, that is, they represent the positive and negative effects associated with particular combinations of the values. For example, if people who hold more environmental values go camping, the number of people in the camping and environmental values cells would be greater than the number expected based only on the frequency of people with environmental values ($\lambda^{environmental}_{yes}$) and the frequency of people who went camping ($\lambda^{camping}_{yes}$). This excess would be represented by a positive value for the interaction parameter $^{environmental}_{yes}{}^{camping}_{yes}$. If strong environmental values decreased the activity camping, the interaction effect parameter would be negative. If environmental values had no effect on the activity camping, the interaction parameter would be zero. To estimate the lambda parameters, the constraint is imposed whereby the lambda parameter estimates must sum to zero across all categories of a variable. The same constraints are also imposed on the interaction terms. In a saturated model, all effect parameters are included, each of the observed cell frequencies is reproduced exactly by a model that contains all main effect and interaction terms.

These saturated models contain as many parameters as there are cells. The expected values produced when saturated models are used are exactly the same as the observed values of the cells, and therefore the residuals are zero. This can serve as a good

starting point for exploring the models that best describe the data but will probably not be the simplest description of the association between the variables (Norusis, 1994).

The second types of loglinear model is the unsaturated model. Unsaturated models do not contain all of the possible effect parameters, and the variables are all independent of each other, in similar manner conceptually to the chi square independence test for a 2 x 2 crosstabulation. These independent variables can be represented by a loglinear model that does not have any interaction terms, for example, if environmental values and camping are independent,

$$\ln (Fij) = \mu + \lambda^{\text{environmental}} + \lambda_j^{\text{camping}}$$

F*ij* is no longer the observed frequency in the (*i,j*)th cell, but it is now the expected frequency based on this model. The interaction term (λ_{ij}^{ab})is omitted. Different models of these parameters can be used to test the relationships between the variables. In this way, the simplest model which best describes the data can be arrived at by deleting different terms from the saturated model. For example, the independence model (above) is arrived at by deleting the interaction effect of the variables. In the process of deleting, significant relationships need to be retained.

In loglinear analysis special focus is placed upon hierarchical models. In a hierarchical model, if a term exists for the interaction of a set of variables then there must be lower-order terms for all possible combinations of these variables, it is usual to list the higher

order term only, for example if the term λ^{abc} is included in a model, the lower-order terms λ^{a} λ^{b} λ^{c} λ^{ab} λ^{bc} λ^{ac} must also be included.

The notation used for loglinear models usually uses letters or short words which represent specific variables. Letters or short words which are assumed by the model to be associated are usually enclosed in curly brackets (Knoke and Burke, 1980), for example {camp env} is used to represent the model:

$$\ln (Fij) = \mu + \lambda_i^{camp} + \lambda_j^{env} + \lambda_{ij}^{camp\ env}$$

Loglinear analysis is considered to be the most appropriate non-parametric approach to analysis in the present study for these reasons. Firstly, it enables elaboration of the significant relationships that have emerged from the bivariate analysis. Secondly, the relative importance of factors can be examined. Thirdly, it offers the opportunity to uncover the complex relationships between variables at all levels which is the main purpose of the analysis (Knoke and Burke, 1980).

Table 55 Effect Of Values (Reasons For Visit) On Activities Across Both Towns

	Golfing	Fishing	Walking	Climbing	Camping	Mountain biking	Leisure shopping	Toured around-sightseeing	Visited a funfair or themepark	Visited a museum	Visited an art gallery	Been to the theatre
To indulge myself	–	–	–	–	–	–	–	–	–	–	–	–
Fun	–	–	–	–	–	–	6.20033 .04504 .10157+	–	–	–	–	–
Excitement	–	–	–	–	–	–	–	–	–	–	–	–
Spend quality time with friends and family	–	–	–	–	9.30539 .00954 .12443+	–	–	–	11.59137 .00304 .13888+	–	17.16506 .00019 .16914-	–
A safe place to holiday	–	7.01435 .02998 .10803+	–	–	–	–	8.35326 .01535 .11789+	–	–	7.73237 .02094 .11343-	–	7.95715 .01871 .11516-
No hassle	–	–	–	–	–	–	–	–	–	11.6418 .00296 .13918-	11.63744 .00297 .13927-	–
Somewhere well known so I can tell my friends	–	–	–	–	–	–	6.37197 .04134 .10297+	–	6.90633 .03165 .10720+	–	–	–
Relax and unwind, get back in touch with myself	–	6.09657 .04744 .10072*	–	–	–	–	–	–	–	–	–	–
Freedom in wide open spaces	–	–	8.86241 .01190 .12143+	10.83331 .00444 .13426+	18.3311 .00010 .17465+	11.96685 .00252 .14111+	–	–	–	8.11032 .01733 .11617-	–	–
To be closer to nature	8.80748 .01223 .12116-	–	9.05926 .01078 .12277+	8.06522 .01773 .11584+	7.72059 .02106 .11334+	6.35172 .04176 .10280+	–	–	–	–	–	–
Learn something about my own country	–	–	–	–	10.38374 .00556 .13144+	–	–	6.55094 .03780 .10440+	10.84144 .00442 .13431+	–	9.49626 .00867 .12581-	–
Learn something interesting	–	–	11.01443 .00406 .13538+	–	6.87157 .03220 .10693+	–	–	20.33351 .00004 .18394+	–	7.56625 .00015 .17096+	8.61030 .01350 .11979+	–

Pearsons χ2 value, Pearsons χ2 significance, Cramer's V / Direction of effect, + direct effect, - inverse effect, * no discernible effect

Note: Significance level of chi square value only shown where these are < 0.05

Hierarchical Log Linear Models Of Holiday Activities And Value Variables

The following analysis models the relationship between holiday activities and holiday values. The main aim of this modelling was to explore the values which had an effect on a particular holiday activity, and to find out whether this effect was independent or interactive. The first stage of the analysis sought to find the model which best represented the underlying relationships between the variables, in terms of finding the simplest model, which fitted the data well according to the goodness of fit criteria discussed earlier in this chapter. The second stage of the analysis sought to examine the models derived from the first stage and the interactive effects of the value variables at all levels on the propensity to participate in a particular holiday activity.

Although, as discussed in Chapter 7 of the present study, the activities pursued by the tourists to the two towns differed in some cases in terms of their frequency, in only two cases were these differences judged to be substantial in terms of their Cramer's V's exceeding 0.2 (Table 28). Because of the general similarity between the activities pursued, as had been expected from the survey design situationality between St. Andrews and Pitlochry is considered as unimportant in modelling activities in the present study. For the purposes of analysis here, the two samples were combined.

Loglinear modelling began with guidance from earlier bivariate analysis, set out in Table 55. Only the variables which had been shown to significantly influence a particular activity were included in the model. A backward elimination approach was

used successively removing terms having the least effect on the model, thereby simplifying the interactions involved. This process began with the highest order generating class (all the variables included which are significantly associated with an activity).

Table 56 Hierarchical Loglinear Models For Holidaymaking Activities And Tourist Values

Activity	Fitted marginals	L^2	d.f.	p
Visited a museum	{saf has fre int} {saf has fre mus} {saf fre int mus} {has int mus}	6.72204	32	1.000
Naturewatching	{fre na wk nat} {na int nat} {wk int nat}	85.62861	88	.552
Camping	{fre na camp} {ff int na} {lea ff fre} {lea ff int}	370.9016	410	.917
Visited an art gallery	{ff has lea int} { ff int art} { has lea art}	59.68791	64	.630
Leisure shopping	{saf wk fun}{saf fun shop} {wk shop}	8.57555	16	.930
Visited a funfair	{lea wk fai} {ff fai} {lea ff} {ff wk}	23.23884	24	.506
Walking	{na fre walk} {na int walk} {fre int walk}	14.42374	16	.567
Fishing	{saf rel } {saf fish} {rel fish}	3.72283	4	.445
Toured around sightseeing	{lea int tour}	.00000	0	1.00
Visited a historical monument	{has rel int lea} {has rel lea his} {int lea his} {has int his} {rel int his}	18.27211	40	.999
Climbing	{fre na clim}	.00000	0	1.00
Mountainbiking	{fre na bike}	.00000	0	1.00

Tourism value codes

saf	a safe place to holiday
fre	freedom in wide open spaces
na	to be closer to nature
int	to learn something interesting
lea	to learn something about my own country
wk	somewhere well known so I can tell my friends
fun	fun
rel	to relax and unwind
has	no hassle
ff	to spend quality time with friends and family

Activity codes

mus	visited a museum
nat	nature-watching
camp	camping
art	visited an art gallery
shop	leisure shopping
fair	visited a funfair or themepark
walk	walking
fish	fishing
tour	toured around sightseeing
his	visited a historical monument
climb	climbing
bike	mountainbiking

Simplification is essentially a compromise between loss of predictive power and ease of interpretation. For each successive model generated, the maximum likelihood - ratio chi square statistic (L^2), the degrees of freedom (d.f.) and the significance level (p) were recorded. The maximum likelihood ratio chi square statistic is an indicator of the additional information conveyed by a variable being removed from the model. If the

difference in L^2 relative to the difference in d.f. is significant, it can be concluded that one or more independent variables being considered for removal, or their interactions, significantly affect the dependent variable and should be retained. For this analysis the significance level was set at 0.05 as the criterion for remaining in the model. At each stage, subject to the significance level, the term whose removal resulted in the least significant change in the maximum likelihood chi square was removed. This process continued until the model which most simply described the data was obtained, these models are set out in Table 56.

Goodness of fit of each model was assessed by examining the differences or residuals between the observed and expected cell counts based on the model. It is widely accepted that some adjustment of the residuals is necessary when examining residuals because it allows direct comparison. This is because, in their original form larger predicted values would naturally have larger residuals (Hare et al, 1995). Adjusted residuals were used to test goodness of fit of models generated (Table 57). If the model is adequate, the adjusted residuals are approximately normally distributed with a mean of 0 and a standard deviation close to 1. A high proportion of adjusted residuals greater than 1.96 or less than -1.96 suggest that the model might not be appropriate for the data since they are not likely to occur if the model is adequate. A good fit of the model to the observed data is indicated by a small interquartile range (Table 57).

Table 57 Goodness Of Fit Of Hierarchical Log Linear Models For Effect Of Values On Activities

Activity	Fitted marginals	% of adj. residuals >+2.0	% of adj. residuals <+2.0 but >+1.0	% of adj. residuals >-1.0 but <-2.0	% of adj. residuals >-2.0
Camping	{fre na camp} {ff int na} {lea ff fre} {lea ff int}	0	9.1	12.1	5.8
Visited an art gallery	{ff has lea int} {ff int art} {has lea art}	6.1	9.8	16.0	9.2
Toured around sightseeing	{lea int tour}	0	0	0	0
Leisure shopping	{saf wk fun} {saf fun shop} {wk shop}	0	5.5	5.5	0
Visited a museum	{saf has fre int} {saf has fre mus} {saf fre int mus} {has int mus}	3.7	3.7	3.7	21.6
Visited a funfair	{lea wk fai} {ff fai} {lea ff} {ff wk}	0	14.8	18.5	0
Walking	{na fre walk} {na int walk} {fre int walk}	5.5	16.6	18.5	5.5
Visited a historical monument	{has rel int lea} {has rel lea his} {int lea his} {has int his} {rel int his}	2.4	8.0	8.0	27.1
Fishing	{saf rel } {saf fish} {rel fish}	0	0	0	0
Climbing	{fre na clim}	0	0	0	0
Mountainbiking	{fre na bike}	0	0	0	0
Nature-watching	{fre na wk nat} {na int nat} {wk int nat}	3.0	12.3	14.1	8.6

Results Of The Loglinear Analysis Modelling Holiday Activities In Terms Of Holiday Values

Three activities were well modelled in terms of adjusted residuals as they could not be simplified from the total interaction: touring around sightseeing, mountainbiking and climbing (Table 57). These special cases apart, most other activities had generally small residuals: naturewatching, visiting a funfair, shopping, fishing, walking and camping. One further activity was on the margins of acceptability in terms of residuals, namely visiting an art gallery, visiting a historical monument and visiting a museum, and therefore their discussion below needs to be tempered with this limitation. The difficulty of modelling, having visited a museum, may flow from the situationality pertaining to this particular activity as noted earlier. However, situationality cannot be an explanation in modelling these other activities. As the funfair model produced

neither generic direct nor background effects, as indicated by the lambda parameter estimates (Appendix 3), it is also omitted from the discussion which follows.

The impacts of value combinations predicting behaviour are of interest. The table outlining the impacts of significant value combinations is found in Appendix 3. This table provides the lambda parameter estimates for the general loglinear model which as discussed earlier in the chapter, are essential to their interpretation. In this table, the higher the absolute value, the greater the impact the interaction terms have on the probability of the particular interaction occurring, with positive values raising the probability and negative values lowering the probability of that interaction occurring.

From the lambda "effect" parameters, the loglinear models showed that these activities could either be interpreted as the positive outcome of values reported, or as the negative outcome (the latter being the case where reporting a value as very important or somewhat important tended to be associated with non-participation in an activity). Most effects were found to be negative. Those interactions with large positive lambda parameter effects are listed in Appendix 3 and underpin the following discussion.

Climbing, however, was one exception to the generally negative effects found. Participation in climbing was found to be directly associated with emotion dominant the values *freedom in wide open spaces* and *to be closer to nature*. When a respondent reported both as very important he or she was much more likely to have climbed, and conversely when both these values were reported as unimportant. Of the values *to be closer to nature* and *freedom in wide open spaces* the former appeared the most

important as it increased the likelihood of participation even when *freedom in wide open spaces* was given as unimportant. As such, conflicts between valuing *being closer to nature* and *freedom in wide open spaces* were resolved in favour of the former.

Supplementing these direct effects was the background interaction generally of *freedom in wide open spaces* and *to be closer to nature* together when both were rated as very important.

A second positive effect was found for leisure shopping. Where the cognition dominant value *somewhere well known so I can tell my friends* rated as very important it had a positive impact on the propensity to participate in leisure shopping. Supplementing this direct effect, the joint rating of the cognition dominant *a safe place to holiday* and emotion dominant *fun* as very important had a background interaction irrespective of the rating of *somewhere well known so I can tell my friends*. However, the direct impact of *somewhere well known so that I can tell my friends* may imply that consumers are comparatively "captive" to Scotland, or like destinations, in the sense that they value being able in their daily lives to be known for having shopped in Scotland. To these tourists, where they have shopped matters.

In contrast to these positive effects, the joint interaction of the cognition dominant *to learn something about my own country* and *to learn something interesting* when both rated as very important reduced the propensity of tourists to tour around sightseeing. Similarly, the joint rating of the emotion dominant *freedom in wide open spaces* and *to be closer to nature* as very important, decreased the propensity of tourists to

participate in mountainbiking. When the cognition dominant *to learn something interesting* was rated as very important and *the emotion dominant to be closer to nature* as either very important or of some importance, the propensity to participate in walking was reduced. This implies that walking is unassociated in the present context with hiking in remote places; an interpretation concurrent with the urban location of the two samples, and the towns being removed from long distance footpath routes.

The joint rating of the emotion dominant *freedom in wide open spaces* and *to be closer to nature* as very important reduced the propensity of tourists to participate in camping (a result not unexpected as much Scottish camping is on organised and regulated sites, not in unserviced and remote locations). Camping showed several background effects. *Freedom in wide open spaces* when rated as very important had a generic effect. *To learn something about my own country, to spend quality time with friends and family* and *freedom in wide open spaces* were found to interact at all levels in terms of camping - irrespective whether each was rated unimportant, somewhat important or very important. To *learn about my own country* and *to learn something interesting* were found to interact when both rated as very important, irrespective of the value *to spend quality time with friends and family.*

As "heritage" activities, visits to historical monuments, museums and art galleries[2] might be thought to be similarly value driven. This was not fully the case among the sample studied, although the size of the residuals in the art gallery model impels some caution in the discussion. The propensity to visit a museum was found to be markedly

[2] In the U.K the term "art gallery" is used instead of "art museum".

reduced when the emotion dominant *no hassle* was reported to be very important. Museum visiting also showed a prevalent interaction of the cognition dominant but inner directed *to learn something interesting* when rated as very important with other variables as background effects. Art gallery visiting was found to be more complex. It was reduced when *no hassle* and (surprisingly when compared to museums) *to learn something interesting* were both rated as very important. *No hassle*, when rated as unimportant, had a pervasive background effect. *To learn something interesting* when rated as unimportant also had a background effect when interacting with *no hassle* and *to spend quality time with friends and family* when both the latter were rated either as of some importance or very important. Visiting a historical monument, however, stood in some contrast to both museum and art gallery visiting among the sample. *No hassle* when rated as very important, and when interacting with *to relax and unwind* as both very or somewhat important generally had a positive impact on the propensity to visit a historical monument implying the importance of these emotion dominant and inner directed values to this activity. *No hassle* rated as very important also had a background effect, interacting with *to learn about my own country* as both unimportant or somewhat important. One activity was difficult to interpret from residuals. The joint rating of *a safe place to holiday* and *relax and unwind* as very important had a background interaction for fishing, a model for which no notable residuals were found for direct effects.

Summary

The loglinear analysis in this chapter has shown that combinations of tourism values, do, to some extent, influence holiday behaviour, thereby indicating that holiday behaviour can be predicted by examining the interaction between tourism value combinations.

Hierarchical loglinear analysis allowed examination of the interaction and resolution of these multiple, conflicting values in a tourism context when an individual has made the decision to participate or not to participate in a situational activity. Findings in this study show that prediction is most common in the negative i.e. who will not participate in a particular holiday activity. The relative strength or importance of the tourism values of the individual resolves the conflict of participation or non participation.

This analysis does help to clarify some of the points made earlier in the study. In terms of activities, it was discussed in Chapter 7, that environmental tourists were more likely to engage in physical holiday activities than "other" tourists. This was echoed elsewhere in the literature, ecotourists were consistently found to be highly associated with a propensity to engage in physical holiday activities such as climbing, hiking, watersports etc. The findings in this analysis would seem to support this. The activity climbing was found to be positively associated with the environmental values *to be closer to nature* and *freedom in wide open spaces*. The interaction of these two environmental values also reduced the propensity of these tourists to participate in

mountainbiking, an activity which is considered to be detrimental to the natural environment.

As discussed in Chapter 7 of the present study, cultural activities such as visiting a museum, visiting an art gallery and visiting a historical monument, are more associated with "other" tourists, that is those not holding strong, dominant environmental values. This was also found to be the case in this analysis, these activities being associated with the values *to spend quality time with friends and family, no hassle, to relax and unwind* and *to learn about my own country*. Interestingly, the value of *no hassle* was a dominant value in terms of non-visiting art galleries and museums but was a positive dominant value in terms of visiting historical monuments. This may imply that in Scotland, historical monuments are considered easily accessible and user friendly, in general, "no hassle" and art galleries and museums are not. This has important implications for attraction managers who may need to consider the "convenience" factor of their attractions in their marketing strategies.

CHAPTER 11

MODELLING TOURISTS' VALUE VARIABLES AND AFFECTIVE ATTACHMENT TO PLACE

Hierarchical Log Linear Models Of Affective Attachment To Place And Tourism Values

The previous chapter showed that combinations of tourism values, to some extent, influence holiday behaviour; thereby indicating that holiday behaviour can be predicted by examining the interaction between tourism value combinations. Williams et al (1992) suggested that the type and level of attachment that individuals feel for a place may influence their concern for how the place is used and the degree of substitutability of the place. This has important implications for tourism managers. In particular, tourism managers who seek to promote or foster responsible tourism in a destination need to examine what is valued in a particular place and why it is valued. By examining tourism values as expressed reasons for visiting Scotland and their relationship with type of place attachment, it may be possible to identify the tourism values that influence, or are in conflict with, attachment to place or the "natural environment".

The following analysis models the relationship between tourism values and attachment to place. The main aim of this modelling was to explore the values which had an effect on place attachment or attachment to "natural environment", and to find out whether this effect was independent or interactive. The first stage of the analysis sought to find the model which best represented the underlying relationship between the variables, in terms of finding the simplest model, which fitted the data well according to the goodness of fit criteria discussed earlier in Chapter 10. The second stage of the analysis sought to examine the models derived from the first stage and the interactive

effects of the value variables at all levels on the type of attachment to place or the "natural environment".

In Chapter 8 of the present study it was shown that both environmental and "other" tourists overall, show stronger levels of attachment to Pitlochry than St. Andrews. Because of this difference in attachment to the two places, theoretically it would be better to model the effects of values on attachment to Pitlochry and St. Andrews separately. However, with a sample of only 300 tourists in each town, the effect of small changes in numbers in some of the cells of the multi-dimensional loglinear matrices is likely to cause the models to mis-estimate. It should be noted that modelling the total sample of 600 tourists together, as is the case here, may fail to predict attachment to place effectively as the overall "place" effect is ignored.

As with the loglinear analysis in Chapter 10, loglinear modelling began with guidance from earlier bivariate analysis, set out in Table 58. Only the variables which had been shown to significantly influence place or "natural environment" attachment were included in the model. A backward elimination approach was used successively removing terms having the least effect on the model, thereby simplifying the interactions involved. The resulting models which most simply describe the data are set out in Table 59.

As before (Chapter 10), goodness of fit was assessed by examining the differences or residuals between the observed and the expected cell counts based on the model. A good fit of the model to the observed data is indicated by a small interquartile range (Table 60).

Table 58 Effect Of Tourism Values (Reasons For Visit) On Place Attachment Scales Across Both Sites

Place attachment statement	I am very fond of (place), it means a lot to me			I love to visit Scotland			(Place) is a typical Scottish town			(Place) is unique, I wouldn't substitute any other place for the type of things I do here			I find that a lot of my holidays are organised around areas of natural beauty			To me, this area represents a typical Scottish landscape		
Tourism values	$\chi 2$ =	Sig. at	Cramer's V=	$\chi 2$ =	Sig. at	Cramer's V=	$\chi 2$ =	Sig. at	Cramer's V=	$\chi 2$ =	Sig. at	Cramer's V=	$\chi 2$ =	Sig. at	Cramer's V=	$\chi 2$ =	Sig. at	Cramer's V=
To indulge myself	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fun	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Excitement	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
To spend quality time with friends and family	8.84148	.01203	.12129	6.10811	.04717	.10081	--	--	--	--	--	--	--	--	--	--	--	--
A safe place to holiday	12.18685	.00226	.14240	--	--	--	8.29118	.01583	.11745	23.37991	.00001	.19724	--	--	--	--	--	--
No hassle	--	--	--	6.45991	.03956	.10368	--	--	--	9.08920	.01062	.12298	--	--	--	--	--	--
Somewhere well known so that I can tell my friends	--	--	--	--	--	--	18.68256	.00009	.17631	9.96114	.00687	.12874	--	--	--	16.57912	.00025	.16609
Relax and unwind, get back in touch with myself	--	--	--	--	--	--	--	--	--	--	--	--	9.32042	.00946	.12453	11.38434	.00337	.13763
Freedom in wide open spaces	11.00204	.00408	.13530	6.46876	.03938	.10375	--	--	--	--	--	--	27.65376	.00000	.21451	11.26270	.00355	.13702
To be closer to nature	10.46222	.00535	.13194	--	--	--	--	--	--	--	--	--	68.51091	.00000	.33763	--	--	--
To learn something about my own country	--	--	--	7.14333	.02811	.10902	--	--	--	12.06550	.00240	.14169	--	--	--	7.57419	.02266	.11226
To learn something interesting	--	--	--	--	--	--	--	--	--	--	--	--	22.90153	.00001	.19521	--	--	--

Pearsons $\chi 2$ value, Pearsons $\chi 2$ significance, Cramer's V / Direction of effect, + direct effect, - inverse effect, * no discernible effect

Note: Significance level of chi square value only shown where these are < 0.05

Table 59 Hierarchical Loglinear Models For Place Attachment Statements And Tourism Values

Place attachment statements	Fitted marginals	L^2	d.f.	P
I am very fond of (place) it means a lot to me	{saf fre na} {ff saf na fond}{ff saf fre fond} {ff fre na fond}	35.8644	40	.6569
I love to visit Scotland	{ff lea has} {ff fre has} {ff fre love lea}	45.0647	78	.9990
(Place) is a typical Scottish town	{wk saf} {typic saf} {typic wk}	2.8408	4	.5848
(Place) is unique, I wouldn't substitute any other place for doing the type of things I do here	{saf has} {uniq wk lea has} {saf wk lea} {saf uniq lea}	114.4777	114	.4698
I find that a lot of my holidays are organised around areas of natural beauty	{na fre rel} {beau na int rel} {beau fre int rel}	46.7081	60	.8952
To me, this area represents a typical Scottish landscape	{fre rel} {fre lea wk} {rel land lea wk}	80.5706	86	.6450

Tourism value codes

saf	a safe place to holiday
fre	freedom in wide open spaces
na	to be closer to nature
int	to learn something interesting
lea	to learn something about my own country
wk	somewhere well known so I can tell my friends
fun	fun
rel	to relax and unwind
has	no hassle
ff	to spend quality time with friends and family

Attachment codes

fond	I am very fond of (place)it means a lot to me
love	I love to visit Scotland
uniq	(place) is unique, I wouldn't substitute any other place for doing the type of things I do here
typic	(place) is a typical Scottish town
land	To me, this area represents a typical Scottish landscape
beau	I find that a lot of my holidays are organised around areas of natural beauty

Table 60 Goodness Of Fit Of Hierarchical Log Linear Models For Effect Of Values On Place Attachment

Place attachment statements	Fitted marginals	% of adj. residuals >+2.0	% of adj. residuals <+2.0 but >+1.0	% of adj. residuals >-1.0 but <-2.0	% of adj. residuals >-2.0
I am very fond of (place) it means a lot to me	{saf fre na} {ff saf na fond}{ff saf fre fond} {ff fre na fond}	3.0	9.8	10.4	9.8
I love to visit Scotland	{ff lea has} {ff fre has} {ff fre love lea}	0.0	12.3	8.6	11.7
(Place) is a typical Scottish town	{wk saf} {typic saf} {typic wk}	0.0	0.0	0.0	0.0
(Place) is unique, I wouldn't substitute any other place for doing the type of things I do here	{saf has} {uniq wk lea has} {saf wk lea} {saf uniq lea}	4.3	14.1	11.1	1.8
I find that a lot of my holidays are organised around areas of natural beauty	{na fre rel} {beau na int rel} {beau fre int rel}	1.1	15.6	13.9	8.3
To me, this area represents a typical Scottish landscape	{fre rel} {fre lea wk} {rel land lea wk}	3.1	11.8	7.5	7.5

As discussed in Chapter 10 of the present study, the results of the analysis are interpreted through lambda or "effect" parameters. (Norusis, 1994; Knoke and

Burke, 1980). The lambda parameters are an indication of the effect and extent of the difference between the sums of the effects of the variables taken individually and collectively, that is they represent the positive and negative effects associated with particular combinations of the values.

Results Of The Loglinear Analysis Modelling Place And "Natural Environment" Attachment In Terms Of Holiday Values

The six place attachment statements were successfully modelled in terms of their generally small adjusted residuals (Table 60). The model for the statement *(Place) is a typical Scottish town* produced neither generic direct nor background effects, as indicated by the lambda parameters effects, and is therefore omitted from the discussion that follows.

The impacts of value combinations predicting attachment to place or attachment to "natural environment" are of interest. From the lambda parameters, the loglinear models showed that these attachment statements could either be interpreted as the positive outcome of values reported, or as the negative outcome. Most effects were found to be positive, i.e. where reporting a value as very important or somewhat important is associated with strong attachment to place or the "natural environment". Those interactions with large lambda parameter estimates are listed in Table 61 and underpin the following discussion.

The statement *I am very fond of place, it means a lot to me*, however, was one exception to the generally positive effects found. Fondness of place was found to be

negatively associated with the emotion dominant value *to spend quality time with friends and family*. When a respondent reported the value *to spend quality time with friends and family* as very important and placed low importance on the *value a safe place to holiday*, he or she was much less likely to report fondness for the place; that is, to be strongly attached to place. When the value *to spend quality time with friends and family* was very important, and the importance placed on *a safe place to holiday* was low, place attachment was consistently negative irrespective of the level of the value *to be closer to nature*. The emotion dominant value *to spend quality time with friends and family* is clearly the most important value here as it overrides any sense of attachment to place or need for safety.

Conversely, when the value *to spend quality time with friends and family* was reported as unimportant, and the cognition dominant values, *freedom in wide open spaces* and *a safe place to holiday* were reported as very important the likelihood of being fond / attached to place increased. Of the values *freedom in wide open spaces* and *a safe place to holiday*, the former appeared most important as when the value *to spend quality time with friends and family* was unimportant, and the importance placed on *freedom in wide open spaces* was high, place attachment was consistently strong irrespective of the level of the value *a safe place to holiday*. As such, conflicts between valuing *a safe place to holiday* and *freedom in wide open spaces* were resolved in favour of the latter.

Table 61 The Lambda "Effect" Parameters Of Value Combinations On Affective Attachment To Place And Attachment To The "Natural Environment"

Place attachment codes 1= "attached" 2= "not attached"	Value factor codes 1="unimportant" 2="somewhat important" 3= "very important"	Interaction Term	Lambda "effect" parameter (λ)
fond = I am very fond of (place) it means a lot to me	ff = "to spend quality time with friends and family saf = "a safe place to holiday" na = "to be closer to nature"		
		$ff_3\ saf_1\ na_3\ fond_2$	9.1801
		$ff_3\ saf_1\ na_3\ fond_2$	7.8813
		$ff_1\ saf_1\ fre_3\ fond_1$	21.8331
		$ff_1\ saf_2\ fre_3\ fond_1$	10.5241
		$ff_1\ saf_3\ fre_3\ fond_1$	11.0109
		$ff_1\ fre_1\ na_3\ fond_1$	20.8743
		$ff_1\ fre_2\ na_3\ fond_1$	16.0117
		$ff_1\ fre_3\ na_3\ fond_1$	13.3375
love = I love to visit Scotland	ff = "to spend quality time with friends and family" fre = "freedom in wide open spaces" lea = "to learn about my own country"	$ff_1\ fre_2\ love_1\ lea_3$	8.5523
		$ff_1\ fre_3\ love_1\ lea_3$	10.2915
		$ff_1\ fre_3\ love_1\ lea_2$	9.6421
		$ff_3\ fre_1\ love_1\ lea_1$	12.8006
		$ff_3\ fre_1\ love_1\ lea_2$	13.2574
		$ff_3\ fre_1\ love_1\ lea_3$	11.2945
beau = I find that a lot of my holidays are organised around areas of natural beauty	na = "to be closer to nature" int = "to learn something interesting" rel = "to relax and unwind, get back in touch with myself"	$beau_1\ na_3\ int_2\ rel_1$	9.3719
		$beau_1\ na_3\ int_2\ rel_2$	11.5304
		$beau_1\ na_3\ int_3\ rel_1$	8.0138
		$beau_1\ na_3\ int_3\ rel_2$	12.1675
		$beau_1\ fre_1\ int_1\ rel_3$	9.6311
		$beau_1\ fre_1\ int_2\ rel_3$	9.4411
		$beau_1\ fre_1\ int_3\ rel_3$	9.946
land = To me, this area represents a typical Scottish landscape	rel = " to relax and unwind, get back in touch with myself" lea = "to learn something interesting" wk = "somewhere well known so that I can tell my friends"	$rel_1\ land_1\ lea_2\ wk_2$	8.5853
		$rel_1\ land_1\ lea_2\ wk_3$	8.0684
		$rel_1\ land_1\ lea_3\ wk_3$	8.2119

Similar positive and negative effects were also found for the interaction of the values *to spend quality time with friends and family* and *freedom in wide open spaces*. Here, strong place attachment was found when high importance was put on the value *to spend quality time with friends and family* and low importance was placed on the value *freedom in wide open spaces*. Also interacting with these effects was the value

to learn about my own country, however, when spending time with friends and family was of high importance and freedom was low, the level of place attachment remained strong irrespective of the importance of learning about my own country. Attachment here then may be associated with attachment to Scotland the country, as a holiday setting which facilitates social interaction rather than fondness for Pitlochry or St. Andrews as specific places.

Conversely, when respondents placed low importance on the value *to spend quality time with friends and family* and high importance on the values *freedom in wide open spaces* and *to learn about my own country* the level of place attachment was strong. For these tourists, attachment to Scotland is fulfilled through the sense of freedom and the opportunities to learn that it offers rather than as a backdrop for facilitating social interaction.

As might be expected, strong attachment to the "natural environment" statement *I find that a lot of my holidays are organised around areas of natural beauty* was found to be directly associated with the three values which have been found to be most associated with environmental tourists, namely *to be closer to nature, to learn something interesting* and *freedom in wide open spaces*. The joint high rating of the emotion dominant value *to be closer to nature* and the cognition dominant value of *to learn something interesting* resulted in strong attachment to the "natural environment" regardless of the background interaction of the emotion dominant value *to relax and unwind, get back in touch with myself*.

However, when the emotion dominant value *to relax and unwind* was rated as very important and the cognition dominant value *freedom in wide open spaces* was rated as low, strong attachment to the "natural environment" was also found irrespective of the background interaction of the cognition dominant value *to learn something interesting*. The natural environment for these tourists is used as a medium to relax and unwind whilst for the other tourists attached to the "natural environment" it is valued for the sense of freedom it gives them and allows them to pursue their goal of knowledge.

This is not surprising as the value *to relax and unwind* has been found to be associated with environmental tourists, (to a lesser extent than the other three values in the present study) and also by other studies relating to nature based or ecotourists (Silverberg et al 1996, Valentine 1993). It has been shown in the earlier analysis of the present study that environmental tourists are not a homogeneous subset of tourists, rather, that different types of environmental tourists exist who will likely vary in how they value their holiday environment, why they value it and what they value about it.

Negative effects were found for the value *to relax and unwind* and the second attachment to the "natural environment" statement *To me, this area represents a typical Scottish landscape*. When a respondent rated the value *to relax and unwind* as low, the joint interaction of the emotion dominant values *to learn something about my own country* and *somewhere well known so I can tell my friends* resulted in strong attachment to the "natural environment". Conflict between these values was resolved in favour of satisfaction of the outer directed values of *to learn something about my own country* and *somewhere well known so I can tell my friends*. The direct impact of

these two values implies that these tourists are comparatively captive to Scotland or like destinations in the sense that they value being able in their daily lives to talk about having visited Scotland and what they have learned there. To these tourists, visiting somewhere well known matters. Also of interest here, is that both attachment statement using the word "typical", *(Place) is a typical Scottish town* and *To me this area represents a typical Scottish landscape* are associated with the value *somewhere well known so I can tell my friends*, reflecting the need for social recognition. It may be that for these tourists who like to tell their friends where they have been, stating an opinion on how "typical" a place is imparts a high degree of knowledge of a place and enhances the fulfilment of the social recognition they value.

Hierarchical Log Linear Models Of Concern For The Tourism Environment And Tourism Value Variables

As discussed in Chapter 9, it has been suggested in past tourism research that tourists who show strong levels of attachment to place or a class of places (e.g. wilderness) will show more concern about how that particular environment is used, and will be more sensitive to issues occurring in that environment that are in conflict with their immediate goals. This is an area of potential interest to loglinear modelling. It has been shown in the analysis of Chapter 9, that expressed concern for the tourism environment and tourism values do come into some conflict which has an effect on the resulting show of concern for the immediate environment. For example, environmental tourists with dominant hedonic values were found to be more likely to be supportive of new tourism development, than environmental tourists with dominant social values.

However, what is not clear from the bivariate analysis in Chapter 9, is how the combinations of values which come into conflict when considering the use of the tourism environment and their interaction affects the level of concern of tourists.

The following analysis models the relationship between tourism values and level of concern for the immediate tourism environment. The main aim of this modelling was to explore the values which had an effect on concern for the tourism environment, and to find out whether this effect was independent or interactive. The first stage of the analysis sought to find the model which best represented the underlying relationship between the variables. The second stage of the analysis sought to examine the models derived from the first stage and the interactive effects of the value variables at all levels on the level of concern for the immediate tourism environment.

Because of the general similarity between the levels of concern for both St. Andrews and Pitlochry, situationality is considered unimportant in modelling concern for the tourism environment in the present study and generic modelling can be undertaken.
As with the previous loglinear analysis, loglinear modelling began with guidance from earlier bivariate analysis, set out in Table 62. Only the value variables which had been shown to significantly influence concern were included in the model. A backward elimination approach was used successively removing terms having the least effect on the model, thereby simplifying the interactions involved. The resulting models which most simply describe the data are set out in Table 63.

Table 62 Crosstabulation Of The Eight Environmental Concern Statements By Tourism Values

Tourism Values / Environmental concern statements	To indulge myself	fun	excitement	to spend quality time with friends and family	A safe place to holiday	No hassle	Somewhere well known so that I can tell my friends	Freedom in wide open spaces	To be closer to nature
New leisure and tourist attractions should be encouraged in this area so that people can have fun and enjoyment here	18.24891 .00011 .17425	8.84145 .01203 .12129	14.74421 .00063 .15663	–	–	–	–	–	7.40033 .02742 .11097
Tourists to this area should be encouraged to travel by public transport to keep the area free from congestion and fumes	–	–	10.21287 .00606 .13036	–	–	–	–	–	–
More parking facilities should be provided in this area for the convenience of visitors here	6.76999 .03388 .10813	–	6.55970 .03763 .10447	–	16.36999 .00028 .16504	6.32998 .04221 .10263	–	–	–
The number of new leisure and tourist developments should be restricted if this area is to be kept unspoilt	–	–	–	10.82076 .00447 .13418	–	6.08021 .04783 .10058	–	16.22763 .00030 .16432	20.21220 .0004 .18339
The development of golf courses wastes huge amounts of natural resources such as water and agricultural land	–	–	–	–	–	–	–	12.41815 .00201 .14374	6.74636 .03428 .10595
The use of cars in this area should be restricted to keep it unpolluted	–	–	–	–	–	–	–	–	10.96021 .00417 .13504
Golf courses allow people to enjoy sport in beautiful surroundings	–	–	6.37311 .04131 .10296	6.23222 .004433 .10183	–	–	–	–	–

Pearsons $\chi 2$ value, Pearsons $\chi 2$ significance, Cramer's V / Direction of effect, + direct effect, - inverse effect, * no discernible effect
Note: Significance level of chi square value only shown where these are < 0.05

As with the previous loglinear analysis, goodness of fit was assessed by examining the differences or residuals between the observed and the expected cell counts based on the model. A good fit of the model to the observed data is indicated by a small interquartile range (Table 64).

Table 63 Hierarchical Loglinear Models For Concern For The Tourism Environment Statements And Tourism Values

Environmental concern statements	Fitted Marginals	L^2	d.f	P
New leisure and tourists attractions should be encouraged in this area so that people can have fun and enjoyment here	{in fun na newdev} {in fun exi} {fun na exi} {na newdev exi}	71.02579	72	.510
More parking faciilities should be provided in this area for the convenience of visitors here.	{in exi park saf} {in has park} {has park saf}	77.56554	88	.779
The number of new leisure and tourist developments should be severely restricted if this area is to be kept unspoilt	{has ff na} {has ff fre} {has fre na} {na resdev} {ff resdev}	88.5900	100	.7868
The development of golf courses wastes huge amounts of natural resources such as water and agricultural land	{fre na waste}	0.0000	0	1.000
Golf courses allow people to enjoy sport in beautiful surroundings	{fun ff golf}	0.0000	0	1.000

Tourism value codes

saf	a safe place to holiday
fre	freedom in wide open spaces
na	to be closer to nature
int	to learn something interesting
lea	to learn something about my own country
wk	somewhere well known so I can tell my friends
fun	fun
has	no hassle
ff	to spend quality time with friends and family

Environmental concern codes

newdev	New leisure and tourist developments should be encouraged in this area
park	More parking facilities should be provided here
resdev	New leisure and tourist developments should be restricted in this area
waste	development of golf courses wastes natural resources
golf	golf allow enjoy courses enjoy of sport in beautiful surroundings

Table 64 Goodness Of Fit Of Hierarchical Loglinear Models For Concern For The Tourism Environment Statements And Tourism Values

Environmental concern statements	Fitted Marginals	% of adj. residuals >+2.0	% of adj. residuals <+2.0 but >+1.0	% of adj. residuals >-1.0 but <-2.0	% of adj. residuals >-2.0
New leisure and tourists attractions should be encouraged in this area so that people can have fun and enjoyment here	{in fun na newdev} {in fun exi} {fun na exi} {na newdev exi}	4.6	8.8	5.0	3.3
More parking facilities should be provided in this area for the convenience of visitors here.	{in exi park saf} {in has park} {has park saf}	3.1	6.0	8.8	2.1
The number of new leisure and tourist developments should be severely restricted if this area is to be kept unspoilt	{has ff na} {has ff fre} {has fre na} {na resdev} {ff resdev}	3.3	9.4	12.2	2.0
The development of golf courses wastes huge amounts of natural resources such as water and agricultural land	{fre na waste}	0.0	0.0	0.0	0.0
Golf courses allow people to enjoy sport in beautiful surroundings	{fun ff golf}	0.0	0.0	0.0	0.0

Results Of The Loglinear Analysis Modelling Concern For The Tourism Environment In Terms Of Holiday Values

Two tourism environmental concern statements were well modelled in terms of adjusted residuals only in that they could not be simplified from the total interaction: *The development of golf courses wastes huge amounts of natural resources such as water and agricultural land* and *Golf courses allow people to enjoy sport in beautiful surroundings*. However, the other three tourism environmental concern statements were well modelled, namely: *New leisure and tourists attractions should be encouraged in this area so that people can have fun and enjoyment here; More parking facilities should be provided in this area for the convenience of visitors here* and *The number of new leisure and tourist developments should be severely restricted if this area is to be kept unspoilt* with generally small residuals.

The impacts of value combinations predicting concern for the tourism environment are of primary interest. From the lambda parameter estimates values (Table 65) the loglinear models showed that concern for the tourism environment could either be interpreted as the positive outcome of values reported, or, as the negative outcome (the latter being the case where reporting a value as very important or somewhat important increased the likelihood of not being concerned). Those interactions with large lambda parameter estimates values are listed in Table 65 and underpin the following discussion.

The pro-tourism development statement, *New leisure and tourists attractions should be encouraged in this area so that people can have fun and enjoyment here*, was found to be directly associated with the emotion dominant values to *be closer to nature* and *excitement*. The conflict between these two values here clearly has an effect on the level of concern for the immediate tourism environment. When the value *to be closer to nature* was reported by a respondent to be somewhat or very important and the hedonic value of *excitement* was reported as unimportant, it was found to be much more likely that the respondent would be anti-tourism development in the area. However, when the hedonic value of *excitement* was reported as somewhat or very important, a pro tourism development response was given, irrespective of the level of the value *to be closer to nature*. Conflict between the environmental value *to be closer to nature* and the hedonic value of *excitement* when considering the pros and cons of tourism development is clearly generally resolved in favour of *excitement*.

Similarly the interaction of the emotion dominant values, *to be closer to nature*, *to indulge myself* and *fun* results in a conflict which is resolved in favour of the two hedonic values *fun* and *to indulge myself*. When these hedonic values were reported as somewhat or very important by respondents, a pro-tourism development response was given irrespective of the level of the value *to be closer to nature*. Supplementing these direct effects was the background interaction generally of *to be closer to nature*, *fun* and *excitement*.

Similar results were found for the other pro-tourism development statement, *More parking facilities should be provided in this area for the convenience of visitors here*. The joint interaction of the hedonic values of *fun* and *to indulge myself* when rated as somewhat or very important resulted in a positive response that more parking should be provided for visitors to the area, irrespective of the level of the value *a safe place to holiday*.

Similarly, when a respondent reported the emotion dominant value of *no hassle* as somewhat or very important a pro more parking development response was given regardless of the level of the value *a safe place to holiday*. This is not surprising as the tourism value *no hassle* reflects the need for a comfortable life, which the convenience of more parking development would fulfil.

The anti-tourism development statement, *The number of new leisure and tourist developments should be severely restricted if this area is to be kept unspoilt*, indicated a similar conflict between dominant tourism values and concern for the immediate

environment. The interaction of the value, *to be closer to nature* and the restriction of tourism development statement, shows a clear pattern.. As the value *to be closer to nature* increases in importance to a respondent, so does the likelihood that a positive response to restricting development will be given.

Table 65 The Lambda "Effect" Parameters Of Value Combinations On Concern For The Tourism Environment

Tourism Environment concern codes 1= Agree with statement 2= Disagree with statement	Value factor codes 1="unimportant" 2="somewhat important" 3="very important"	Interaction Term	Lambda Effect Parameter (λ)
newdev =New leisure and tourists attractions should be encouraged in this area so that people can have fun and enjoyment here	na= to be closer to nature exi=excitement fun=fun in=to indulge myself	$na_2\ exi_1\ newdev_2$	5.1761
		$na_2\ exi_2\ newdev_1$	6.357
		$na_2\ exi_3\ newdev_1$	9.4505
		$na_3\ exi_1\ newdev_2$	5.3463
		$na_3\ exi_2\ newdev_1$	5.6875
		$na_3\ exi_3\ newdev_1$	8.6598
		$na_2\ in_2\ fun_3\ newdev_1$	5.0448
		$na_2\ in_3\ fun_2\ newdev_1$	5.6678
		$na_2\ in_3\ fun_3\ newdev_1$	12.5533
		$na_3\ in_2\ fun_2\ newdev_1$	5.3146
		$na_3\ in_2\ fun_3\ newdev_1$	6.852
		$na_3\ in_3\ fun_2\ newdev_1$	6.7856
		$na_3\ in_3\ fun_3\ newdev_1$	7.704
devpark – More parking facilities should be provided in this area for the convenience of visitors here.	saf = a safe place to holiday has = no hassle in = to indulge myself exi = excitement	$saf_1\ has_3\ devpark_1$	8.421
		$saf_2\ has_3\ devpark_1$	5.8684
		$saf_3\ has_3\ devpark_1$	6.640
		$in_2\ has_2\ devpark_1$	5.5632
		$in_2\ has_3\ devpark_1$	6.2004
		$in_3\ has_2\ devpark_1$	6.4436
		$in_3\ has_3\ devpark_1$	7.8624
		$in_3\ exi_2\ saf_1\ devpark_1$	6.1948
		$in_3\ exi_2\ saf_2\ devpark_1$	6.5401
		$in_3\ exi_2\ saf_3\ devpark_1$	6.4436
		$in_3\ exi_3\ saf_1\ devpark_1$	8.9097
		$in_3\ exi_3\ saf_2\ devpark_1$	7.4565
		$in_3\ exi_3\ saf_3\ devpark_1$	8.9097
resdev = The number of new leisure and tourist developments should be severely restricted if this area is to be kept unspoilt	na = to be closer to nature ff = to spend quality time with friends and family	$na_1\ resdev_1$	5.766
		$na_2\ resdev_1$	9.5892
		$na_3\ resdev_1$	14.8265
		$ff_1\ resdev_2$	5.065
		$ff_2\ resdev_2$	7.5656
		$ff_3\ resdev_2$	12.6306

This same pattern can be noted for the interaction of the value *to spend quality time with friends and family* and the same restriction of tourism development statement. However, in contrast to the positive effect noted for the value *to be closer to nature*, the effects found were negative. The greater the importance a respondent placed on the value, *to spend quality time with friends and family*, the more likely a negative response to restricting tourism development in the area.

Summary

The loglinear analysis of the models examining the relationship between values and place attachment suggests that the interaction of combinations of different personal values is associated with the level and type of affective attachment to place or a class of places.

As might be expected, strong affective attachment to place was found to be associated with the emotional values of *freedom in wide open spaces, a safe place to holiday* and *to spend quality time with friends and family*. Conflict arises between these values and strong attachment to place, and are resolved in favour of the dominant value or goals of the individual in the specific tourism context. Spending quality time with friends and family results in strong levels of place attachment when interacting with learning values. For these tourists, strong attachment to place is based on the ability of that setting to facilitate their dominant values of social interaction and learning. Conversely, a high priority on spending quality time with friends and family results in low attachment to place when interacting with freedom and safety. For these tourists,

spending time with friends and family is the most important value and overrides any sense of place attachment or need for freedom or safety.

As might be expected, strong attachment to the "natural environment" as a class of places is strongly associated with the "environmental values" *to be closer to nature, freedom in wide open spaces* and *to learn something interesting*. The joint interaction of these values results in a strong attachment to the natural environment, which would suggest that the "natural environment" for these tourists is valued for its intrinsic worth and for its ability to fulfil their environmental values. Similarly, strong attachment to the natural environment was found to be associated with the value *to relax and unwind;* the environment is valued in this case as a facilitator for relaxation. For tourists who value relaxation most highly, areas of natural beauty are probably highly substitutable with similar areas that fulfil these values.

Strong attachment to the natural environment was also found to be strongly related to the cognition dominant values of learning and *somewhere well known so I can tell my friends*, in conflict with the value of relaxation. In this case, the conflict was resolved in favour of the cognition dominant values. The direct impact of these two values implies that these tourists are comparatively captive to Scotland or like destinations in the sense that they value being able in their daily lives to talk about having visited Scotland and what they have learned there. To these tourists, visiting somewhere well known matters.

From the analysis of the concern for the immediate environment statements and tourism values it is apparent that concern for the tourism environment is in conflict mainly with hedonic values and goals in the tourism context. The dominance of hedonic values is not unexpected given that holidaymaking is predominantly a hedonic activity (Gnoth, 1997). It has been discussed earlier in this study that environmental values are transformational and transactional (Aitken and Bjorklund,1988) and that person/environment relations do not exhibit stability. The conflict between the more "environmental" values and other values such as *no hassle, fun, excitement* and *to spend quality time with friends and family* when tourism development is in question, seems to be resolved in favour of the values which are reflected as the immediate aims and objectives of the tourists that are dominant within the tourism context. Thus, whilst new development is considered as unacceptable in some situations, in the tourist's current situation it would facilitate the dominant values of *fun, excitement* , *no hassle* and *spending quality time with friends and family.*

The analysis in this chapter indicates that the type and level of attachment that individuals feel for a place may influence their concern for how the place is used and the degree of substitutability of the place. This has important implications for tourism managers. In particular, tourism managers who seek to promote or foster responsible tourism in a destination need to examine what is valued in a particular place and why it is valued. By examining tourism values as expressed reasons for visiting Scotland and their relationship with type of place attachment and concern for the tourism environment, it may be possible to identify the tourism values that influence, or are in conflict with concern and attachment to place or the "natural environment".

Awareness of the tourism environment could be raised by appealing to those values that influence concern.

CHAPTER 12

SUMMARY AND CONCLUSIONS

Summary And Conclusions

The present study has sought to develop a new conceptualisation of personal values in decision making, in particular, focusing on the contextual measurement of values, in the present case, that of tourism. The study of personal values in past tourism research has tended to ignore the current context and situation, but rather, has focused on abstract value measures divorced from the particular temporal and spatial situations within which they are being measured. The measurement of these abstract values has been shown to be problematic as values may not necessarily be considered as enduring beliefs, and therefore do not remain constant, but may be adapted to different environments according to the immediate goals and objectives of the individual.

Two multivariate analytical techniques were used to model tourists' values in the present study: cluster analysis and loglinear analysis. Firstly, cluster analysis was used to group like respondents empirically across their expressed personal values. In this way, a heterogeneous sample was reduced into homogeneous subsets based on similar personal values, thereby identifying similar market segments of tourists sharing similar values (Madrigal and Kahle, 1994; Schwartz and Bilsky, 1987). This segmentation was deliberately structured to differentiate environmental tourists from others. Secondly, hierarchical loglinear analysis was used to examine the multiple effects of values on the behaviour of tourists. The detailed examination of the interaction effects of values which loglinear analysis permits, enabled a fuller understanding of which values were most important to tourists.

The present study defined motivations for choosing to visit a particular destination as situated rather than abstract values. These values can be considered as those that are invoked when an individual seeks to adapt to a particular situation or environment and may be considered current in the situation in which they are measured, in the present case, similar Scottish small towns.

Conceptually, contextuality is doing things in different roles, or different life domains. It has been argued in the present study that this may be the difference between tourism and home life or work life for example. However, it may also be the difference between different types of tourism, such as cultural tourism, beach tourism and business tourism. In the present study, only one type of tourism was investigated, namely landscape tourism.

Conceptually, situationality refers to the differences between places. Operationally, to make modelling manageable, it was taken to refer to the difference between types of places. Two similar small urban places (Pitlochry and St. Andrews) were explicitly sought for the sample for the present study , and a third (Stirling) was excluded on this basis. Throughout the present study, "situation" at the level of the two towns was not generally found to have a substantial effect on the values of tourists who visited these two places and on the activities that they carried out there, as had been expected from the survey design. It has been argued in the present study, that tourist activities can be seen as both a "demand side" (value) phenomenon, and a "supply side" (opportunities) phenomenon. As a "demand" side phenomenon, tourism values may be adapted to a particular situation and environment and the activities engaged in will be those that

fulfil tourism values and are facilitated by the immediate environment. As a "supply side" phenomenon, the opportunities present in a specific environment will also shape tourist behaviour. In fact, differences between the two towns were found to be absent or comparatively insubstantial for all but two activities, namely camping (Cramer's V=.28778) and having visited a museum (Cramer's V= .20006). Situationality was therefore assumed to be most pertinent to comparisons of more dissimilar urban environments such as large cities and either of the two survey towns.

However, it must be recognised that the extent of contextuality (tourism type) and situationality (type of places) is critical. While there might not be a large extent of differences in tourist activities and values between St. Andrews and Pitlochry, differences may be expected between tourists visiting Pitlochry and those, for example, visiting the major Scottish cities such as Glasgow or Edinburgh. In the light of these possible differences, the utility and relevance of two dimensional model of tourists values, as proposed in Chapter 2 of the present study needs wider appraisal.

Implicit in this model, is the need potentially for a different survey form in each situation and context beyond the application in the present study. As previously discussed, "situation" at the level of the two towns was not found to have a substantial effect on tourists values or the activities that they carried out and a common survey form was utilised for the present study. Whilst the two dimensional model as it is presented here, may pertain elsewhere in Scotland (and potentially in like places), the present study makes no claim to its universality beyond the present application.

The wider importance of the model is in the dimensions, namely the emotion or cognition dominance of values and the inner or outer direction of these values; and not in the content of the boxes as allocated in the present study. The reason for this is that the content might be expected to vary according to tourism type (context) and type of place (situation). Not only will the values included potentially change, but, as their allocation in terms of inner or outer direction flows in part from the associations that people made when they talked about them, their allocation to each of the 4 boxes (cells) may also vary. Because of this, it must be recognised that the allocation of particular values to the cells of the model is subject to some degree of informed subjectivity and will be guided by content analysis of exploratory work on motivation in the current context and situation.

This potential change in the values to be measured and their allocation to the cells of the model will have a further effect in terms of replicating the segmentation of tourists carried out in the present study, as it may affect the labelling of the segments used elsewhere. The prevalent values pertinent to tourism in the present study were found to be dominated by emotional and hedonic values. This is not surprising given that holidaymaking is a pleasure seeking, hedonic activity and thus particularly prone to emotional influences. Similar values have been found to be prevalent amongst tourists in other studies. For example, Pitts and Woodside (1986) measured personal values, using an abstract, decontextualised value measure and found unsurprisingly that travel and tourism was positively related to two terminal values, an exciting life and pleasure. Clearly, respondents considering travel and leisure, which is a fun and enjoyment related pursuit, would be likely to emphasise this type of hedonic values as they are

often associated with holidaymaking. If asked to carry out the ranking task whilst at work, for example, the same respondents might likely emphasise different values, i.e. those pertaining to work and career, such as achievement or self respect. Similarly, as discussed earlier, the extent of situation pertains, other values found to be prevalent amongst tourists in the sample taken for the present study were those related to aesthetics and aspects of the natural setting of the holiday environment. This is because landscape tourism was the context within which the study was carried out, in which aesthetics and settings for activities are known to be important (Prentice, 1997a). This highlights the importance of measuring tourists values in the current context, if reported values are effected by the situation or context they cannot be regarded as transsituational or enduring and will vary according to the context and situation within which they are measured.

However, in addition to the prevalence of emotional and hedonic values, the internal distinctions between the tourist value clusters were shown to be most readily identifiable according to the importance placed on their distinguishing mix and direction of other, secondary values. These are summarised in Figure 9.

Figure 9 Summary Model of Tourists Values Contextualised

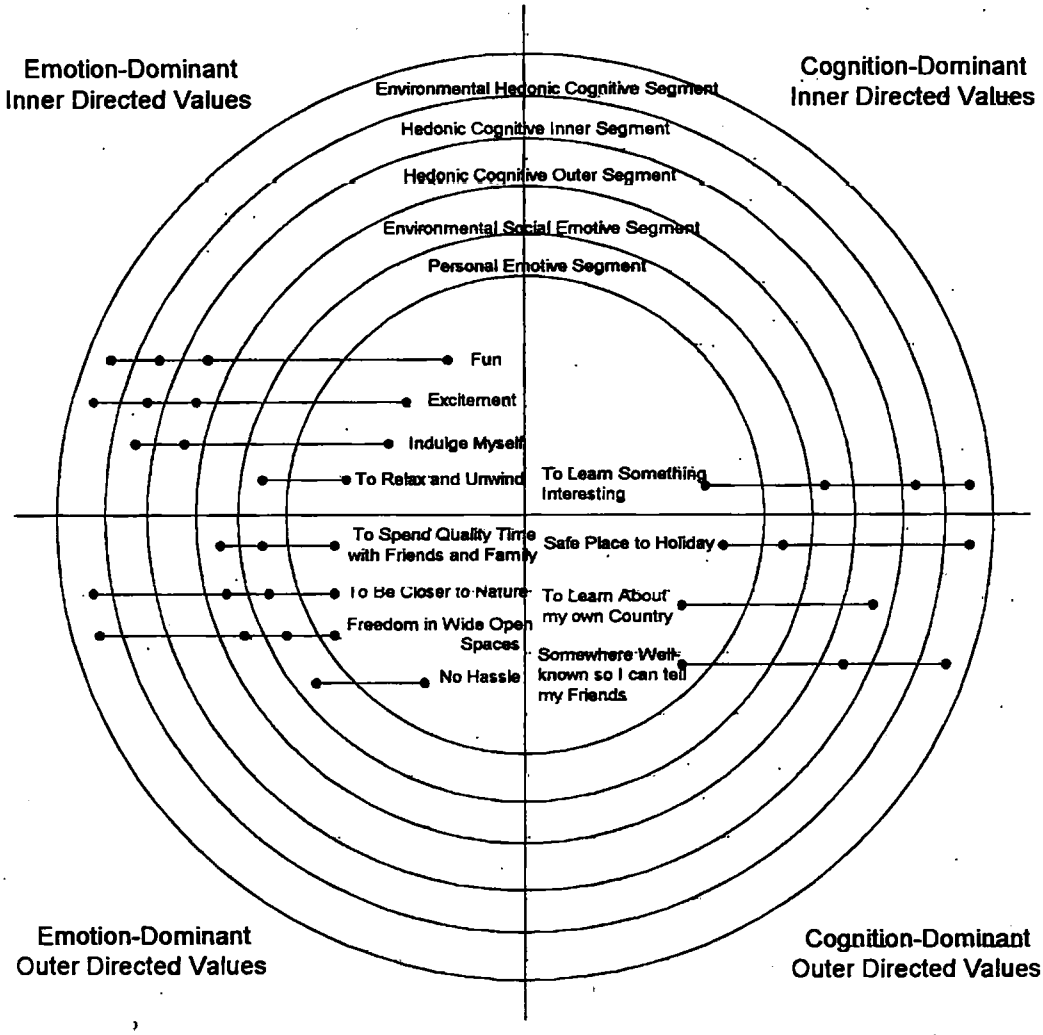


Figure 9 shows a summary of the tourism values that were most common amongst the tourists to St. Andrews and Pitlochry. This summary model retains the dimensions of the two dimensional model presented in Figure 1 (page 47), but summarises visually the most recurrent values amongst the tourist value segments. For example, we can see that the value *to learn about my own country* was the value that occurred least amongst the segments, found to be significantly important to only one of the six tourist value segments, (namely Hedonic Cognitive Outer). We can also see that the hedonic, emotion dominant values of *fun* and *excitement* and the "environmental" values *to be closer to nature, freedom in wide open spaces* and *to learn something interesting* were

the most commonly recurring values amongst the six segments. These hedonic and environmental value "domains" were not found to be mutually exclusive, a finding which stands in some contrast to the suggestion of most past research on nature based tourists, or ecotourists, as discussed in Chapter 5 of the present study. Much of this past work, suggests that ecotourists are a distinct homogeneous subset of tourists with similar values, needs and behaviours. However, as depicted in Figure 9, and discussed throughout the thesis, whilst tourists can be segmented on their dominant environmental values, they can also be further distinguished by their mix of secondary values. These secondary values interact with the environmental values of these tourists and to some extent will guide behaviour.

The findings of the present study have shown that a distinct set of tourists can be categorised on the basis of their strong environmental values. This finding is concurrent with those of much of the past work on ecotourists and motivations, discussed in Chapter 5 of the present study. The environmental tourists in the present study, were those tourists who placed strong levels of importance on three "environmental indicator" values, namely; *to be closer to nature, freedom in wide open spaces and to learn something interesting*. These tourists were also found to be internally distinguishable by their secondary values and were further segmented into two segments, Environmental Hedonic Cognitive and Environmental Social Emotive. The hedonic, cognition dominant values of the first segment were *fun, excitement* and to visit *somewhere well known so I can tell my friends*. The presence of these secondary values were not found to have a substantial effect on the activities carried out by these two segments of environmental tourists. In common with past research on

the holidaymaking behaviour of nature based or ecotourists (Kretchman and Eagles, 1990; Fennell and Smale, 1992; Eagles, 1992; Crossley and Lee, 1994) which found that ecotourists were more likely to engage in physically active and education related holiday activities than "general" tourists, the present study also found that environmental tourists were also more likely to go climbing, to visit a wildlife attraction, to visit a historical monument and to go naturewatching than "other" tourists.

However, it should be noted that a strong degree of generality of activities across the segments was also found . Walking, leisure shopping, nature-watching, touring around sightseeing and visiting historical monuments were activities that were found to be generically popular amongst the tourists to the two Scottish towns, irrespective of dominant tourism values or specific location. The environment of Scotland as a holiday destination facilitates these activities: indeed, they have consistently been found to be the most popular activities amongst tourists to Scotland (STB, 1996). The findings of the present study further supports either an interpretation that individuals adapt their values to a particular type of environment and situation (Kahle, 1983; Burningham and O'Brien, 1994) or are deterred to other places earlier in the process of decision making if adaptation is considered unwanted.

The results of the present study have not only shown the associations between values and activities and values and attachment but it has further demonstrated the associations between activities and attachment to place or to the natural environment as a class of places. The present study has shown the pertinence in the Scottish

landscape context of looking both at those activities done within a landscape setting and attachment to that setting. In addition to the multiple attributes of a setting which are selected to satisfy the dominant tourism values of tourists, the study has suggested that the presence and level of affective attachment to place or the "natural environment" as a class of places may have an effect on how the tourism environment is used by visitors and how it is valued. Exceptionally, in the present study, in the examination of affective attachment to place or to the "natural environment" as a class of places, situationality was found to be important with substantial differences in levels of attachment between the two towns. Because of this, the present study recommends that if further research is to be carried out with particular interest in attachment or endearment to place using the two dimensional model categorising values as suggested in the present study, operationalisation at the level of broad types of places may be inappropriate and a different survey form for each "place" or situation may be needed.

Affective attachment to place and to the "natural environment" was found to be generally stronger amongst tourists holding strong environmental values, a finding concurrent with past studies (Williams et al, 1992). This was generic across both of the survey towns. However, the situational (between town) differences in the levels of attachment to place or to the "natural environment" were found to be reflected by the main focus of the tourists' interaction with the two towns. Generally, affective attachment to place and to the "natural environment" was found to be greater amongst the tourists' whose main focus was on the activities that the place and the setting facilitated. Strong attachment to the "natural environment" was found to be greater amongst tourists who focused mainly on the natural setting itself, relative to any other aspects of the tourist experience.

Between the two towns, generally, place attachment and attachment to the "natural environment" was found to be stronger amongst tourists to Pitlochry. This was found to be attributable to the strong focus on generalist activities amongst visitors to Pitlochry. Similar findings that place endearment is effected through generalist activities have been reported by Prentice et al, (1994). Similarly, the group of "other" tourists to St. Andrews were found have a strong activity focus, and showed a strong level of attachment to place and to a lesser extent to the "natural environment". Attachment to place amongst these tourists appeared to be due to the generalist activities that they participated in but also an attachment to St.Andrews as a unique place which facilitated their participation in some "unique" activities which can not be experienced in the same way elsewhere, namely, visiting the annual town fair and specialist leisure shopping.

The present study has suggested that for tourists that are strongly attached to place, St. Andrews, Pitlochry or a similar Scottish environment may be less substitutable as a holiday destination based on the perceived "unique" ability of the place to facilitate their activity goals or because the place fulfils all of their tourism needs and dominant values. The extent of substitutability of a place is critical here. The suggestion is not that these tourists would not go elsewhere. Rather, it implies that they are likely to have visited the place before and that repeat visits are more likely amongst these tourists.

The present study further argued that the level of attachment that an individual feels for a particular setting will effect their concern for that environment and how they use it (Chapter 9). The tourism values measured in the present study, as current in the immediate tourism context and situation, do have an effect on how the environment is valued, namely the concern that tourists show for their immediate environment. Elsewhere in the tourism literature it has been pointed out that, whilst most people are accepting and in agreement with the concept of sustainable tourism, in reality it cannot be expected that tourists visiting an area for a short period of time will be too interested in their impact on the place (e.g. Butler, 1990). The findings of this study to some extent would support this in so much as, in a landscape tourism context, those tourists who hold strong environmental values clearly experience a value conflict between hedonic values such as *fun* and *excitement* and social values such as *to spend quality time with friends and family* which have been found to be dominant in a tourism context, and environmental values. It is clear that there exists some potential conflict between valuing the environment and fulfilling holiday values and that this conflict will be resolved on the basis of the interaction of these values and the relative ordering of importance of values as goals in the immediate context.

The findings of the present study suggest further that whilst there are some differences between environmental and "other" tourists in terms of activity preferences and destination attributes when on holiday in Scotland, these differences are not really substantial. However, although the measurement of tourists' values in the context of landscape tourism in the present study permitted potential access to tourists to whom the "environment" as a setting for holiday activity would be important, a limitation of

the present study was that the survey was carried out in urban places, and because of this, may have failed to locate environmental or ecotourists as disproportionately town- avoiders.

The present thesis has used two alternative forms of modelling to explore the pertinence of multiple values. The first form of modelling, cluster analysis and segmentation, is a descriptive technique which categorises individuals. The second, hierarchical loglinear analysis is a predictive technique. In view of the small subsamples generated by the segmentation, the two techniques were not combined. Although, with a larger sample, predictive modelling for individual segments could be attempted which would likely produce simpler models, but many more of them. These models may be easier to interpret, but their increased number would have implications for their manageability. However, as numbers of cases in the cells of the multi-dimensional loglinear matrices are reduced through splitting samples, errors of prediction are increased for segments. The present analysis sought to avoid these problems.

As values have been shown to be simultaneously multiple, interactive (compounding or conflicting) and context specific, detailed examination of the level at which they compound or conflict was needed in order to fully understand their effect on behaviour. Hierarchical loglinear analysis allowed examination of the interaction and resolution of these multiple, conflicting values in a tourism context when an individual has made the decision to participate or not to participate in a situational activity. It also allowed examination of their attachment to place and to the "natural environment" and their concern for their immediate tourism environment. The relative strength or

importance of the tourism values of the individual resolves the conflict of participation or non participation in an activity, concern for their environment and their affective attachment to settings.

It is clear from the analysis in Chapters 10 and 11 that combinations of tourism values, do, to some extent as would be expected, influence holiday behaviour, thereby indicating that holiday behaviour can be predicted by examining the interaction between tourism value combinations.

In terms of holiday activities (Chapter 10) it was shown that prediction is most common in the negative, namely who will *not* participate in a particular holiday activity. Loglinear analysis clarified some of the points made earlier in the study, in particular that environmental tourists were more likely to engage in physical holiday activities than "other" tourists. This was echoed elsewhere in the literature: ecotourists were consistently found to be highly associated with a propensity to engage in physical holiday activities such as climbing, hiking, watersports etc. For example, the activity climbing was found to be positively associated with the environmental values *to be closer to nature* and *freedom in wide open spaces*. The interaction of these two environmental values also reduced the propensity of these tourists to participate in mountainbiking, an activity which is considered to be detrimental to the natural environment. Similarly, cultural activities such as visiting a museum, visiting an art gallery and visiting a historical monument, are more associated with "other" tourists, that is, those not holding strong, dominant environmental values. These findings were also echoed elsewhere in the literature (Wight, 1996b).

The loglinear analysis of the models examining the relationship between values and place attachment suggests that the interaction of combinations of different personal values is associated with the level and type of affective attachment to place or a class of places. Strong affective attachment to place was found to be associated with the emotional values of *freedom in wide open spaces, a safe place to holiday* and *to spend quality time with friends and family*. Conflict arises between these values and strong attachment to place, and are resolved in favour of the dominant value or goals of the individual in the specific tourism context. As might be expected, strong attachment to the "natural environment" as a class of places is strongly associated with the "environmental values" *to be closer to nature, freedom in wide open spaces* and *to learn something interesting*. The joint interaction of these values results in a strong attachment to the natural environment, which would suggest that the "natural environment" for these tourists is valued for its intrinsic worth and for it's ability to fulfil their environmental values.

It is apparent, from the analysis undertaken in the present study, that concern for the tourism environment is in conflict mainly with hedonic values and goals in the tourism context. The dominance of hedonic values is not unexpected given that holidaymaking is predominantly a hedonic activity (Gnoth, 1997). It has been discussed throughout the present study that environmental values are transformational and transactional (Aitken and Bjorklund,1988) and that person/environment relations do not exhibit stability. The conflict between the more "environmental" values and other values such as *no hassle, fun, excitement* and *to spend quality time with friends and family* when tourism development is in question, were found to be resolved in favour of the values

which are reflected as the immediate aims and objectives of the tourists that are dominant within the tourism context. Thus, whilst new development is considered as unacceptable in some situations, in the tourist's current situation it would facilitate the dominant values of *fun, excitement*, *no hassle* and *spending quality time with friends and family*. It is clear that the type and level of attachment that individuals feel for a place may influence their concern for how the place is used and the degree of substitutability of the place.

The exploratory use of loglinear analysis as a modelling technique in the examination of personal values is a potentially important advance in value measurement research. Personal values have, for the last three and a half decades, known to be multiple, compounding and conflicting. The simultaneous examination of their interaction in a specific context or situation has not before been addressed in tourism research. Equally, because of this, the extent of any mis-estimation by the models can not be appraised by already existing criteria. General patterns have to be looked for instead, using the lambda parameter estimates.

As an integrated approach to the measurement of values, the techniques presented in the present study have important implications for tourism managers. If the satisfaction of emotion-dominant inner directed values is achieved by fulfilling an outcome such as the need to relax and unwind, or to feel free in wide open spaces, then classes of objects such as destinations, services or experiences that satisfy these values can be chosen and are readily substitutable. Where these tourism value systems have a cognition-dominant and outer directed component, satisfaction and fulfilment is

through more specific objects or processes which are not so readily substitutable. The unique selling points of destinations are likely to be more associated with those values of potential and actual tourists which are simultaneously cognition-dominant and outer directed. In particular, tourism managers who seek to promote or foster responsible tourism in a destination need to examine what is valued in a particular destination and how it is valued by those who visit.

The responsibility of tourism managers and marketers is twofold. Firstly, to ensure that the emotion-dominant values of tourists are satisfied through the services and amenities available in a particular destination. The satisfaction of these values will increase the likelihood of repeat behaviour, i.e. repeat visits. Secondly, to identify and promote the activities or objects in a particular environment which invoke cognition-dominant and outer directed values can help not only to confirm this satisfaction, but also to strengthen the attitudes of an individual that a particular destination is less substitutable.

The utility of the methodology proposed in the present study is currently being explored in an examination of the personal values prevalent amongst tourists to Eastbourne, an urban location in a coastal setting in the South of England with a well established and diverse tourism base which forms the focus of tourist activity for its surrounding rural landscapes, in particular, Beachy Head and the South Downs. Tourism pressure has been officially recognised as detrimental in certain key locations in Eastbourne, although, as tourism is of considerable significance to the area, some development is officially perceived as necessary (EBC, 1998). Preliminary results of

the work in Eastbourne indicate some support for the findings of the present study. Emotional and hedonic values were found to be prevalent amongst the tourists, and, in addition, similar to the present study, the internal distinctions between the tourist value clusters are most readily identifiable according to the importance placed on the distinguishing mix and direction of other, secondary values. Further analysis is being carried out and will be reported on completion.

In terms of the wider application of the methods for measuring tourists' values as proposed in the present study, the potential for the development of these methods is being explored in two quite distinct contexts. The first is the practical application of the integrated value measurement techniques to examine the personal values of users and non-users of rail services. Similar to the consumption of "green" products, there is a marked disparity between support for the use of rail services and actual use of these services. This is a study of much topical interest as the new labour government, as part of their stated commitment to the environment is seeking to introduce measures to reduce the use of private cars and to encourage rail use (DETR, 1998a).

The second potential application for the methods of value measurement proposed in the present study is the examination of the values of those who participate in democratic processes and those that do not. The timeliness of this study coincides with an extensive programme of constitutional reform by the labour government, which calls for additional citizen participation in democratic processes. A number of theoretical models have been used to explain participation in the literature. The integrated approach to value measurement used in the present study will attempt to

enhance theoretical explanations about why some people are involved in this type of voluntary activity when others are not (DETR, 1998b).

The results of the present study integrate and expand the implications of past research on the personal values of tourists, and address some of the problems on which past research measurement techniques have foundered. However, it is also important to recognise the limitations of this study, in particular, the issue of the extent of situationality which pertains. As has been noted in Chapter 2 of the present study, while there might not be a large extent of differences in tourists' values and behaviours between St. Andrews and Pitlochry, differences may be expected between tourists visiting Pitlochry and those for example visiting the major Scottish cities of Glasgow and Edinburgh. The present survey implicitly modelled a like group of tourists, so-called landscape tourists, almost all of whom were touring around sightseeing. The present analysis therefore did not have to address the differing tourism contexts which distinct market segments potentially represent, landscape viewing tourists as against cultural tourists, for example. In terms of the potential for the development of the methods for measuring tourists' values proposed in this study, for general application, it is recommended that more studies need to be done, utilising this method but varying situation between cities, towns and rural places, and varying contextuality within tourism, to explore a series of contexts, beach tourism, cultural tourism and business tourism and the like. The extent of contextuality and situationality will then be more readily understood. As stated by Sheth (1995) at the outset of this work, "The issue of values does not warrant indifference", as an integrated approach, the exploratory ideas

presented in the present study represent an important advance in modelling personal values in consumer behaviour research.

BIBLIOGRAPHY

Aitken, S.C. and E. Bjorklund. 1988. Transactional and Transformational Theories in Behavioural Geography. The Professional Geographer, 40(1):54-64.

Aldenderfer, M.S. and R.K. Blashfield (eds.). 1984. Cluster Analysis. Sage University Papers. California: Sage Publications.

Alexandris, K. and B. Carroll. 1997. Demographic Differences in the Perception of Constraints on Recreational Sport Participation: Results From a Study in Greece, Leisure Studies, 16: 107-125.

Alt, M. 1990. Exploring Hyperspace: A Non-Mathematical Explanation of Multivariate Analysis. Maidenhead: McGraw Hill.

Ap, J. 1992. Residents Perceptions on Tourism Impacts, Annals of Tourism Research, 19(4):665-690.

Archer, B. 1996. Sustainable Tourism - An Economists Viewpoint *in* Briguglio, L., B. Archer, J. Jafari, and G. Wall. Sustainable Tourism in Islands and Small States: Issues and Policies. Volume 1, Cassell, London:6-17.

Ashton, R.E. 1991. Defining The Ecotourist Based on Site Needs. *in* Kusler, J.A. (ed.), Ecotourism and Resource Conservation. Washington D.C: Ecotourism and Resource Conservation Project: 91-98.

Backman. K.F. and T.D. Potts. 1993. Profiling Nature Based Travellers: Southeastern Market Segments. Clemson SC: Strom Thurmond Institute.

Ballantine, J.L. and P.F.J. Eagles. 1994. Defining Canadian Ecotourists, Journal of Sustainable Tourism, 2 (4):210-213.

Barke, M. and M. Newton. 1995. Promoting Sustainable Tourism in an Urban Context: Recent Developments in Malaga City, Andalusia, Journal of Sustainable Tourism, 3 (3):115-134.

Baudrillard, J. 1981. For a Critique of the Political Economy of the Sign. St. Louis: Telos Press.

Beatty, S.E., L.R. Kahle, P.M Homer, and S.Mirsa. 1985. Alternative Measurement Approaches to Consumer Values: The List of Values and The Rokeach Value Survey, Psychology and Marketing, 3:181-200.

Beatty, S.E., L.R. Kahle., and P.M. Homer. 1991. Personal Values and Gift Giving Behaviours: A Study Across Cultures, Journal of Business Research, 22:149-157

Bennet, D. 1991 The Munros. Glasgow: Scottish Mountaineering Trust (second edition).

Bishop, Y.M. 1975. Discrete Multivariate Analysis: Theory and Practice. Cambridge, Mass: MIT Press.

Blamey, R.K. 1997. Ecotourism: The Search for an Operational Definition, Journal of Sustainable Tourism, 5(2):109-130.

Blamey, R.K. and V.A. Braithwaite. 1997. A Social Values Segmentation of the Potential Ecotourism Market, Journal of Sustainable Tourism, 5(1):29-45.

Boo, E., 1990. Ecotourism: The Potential and the Pitfalls. Washington D.C: World Wildlife Fund For Nature.

Boote, A.S. 1981. Market Segmentation by Personal Values and Salient Product Attributes, Journal of Advertising Research, 21(Feb):29-35

Bottrill, C.G. and D.G. Pearce. 1995. Ecotourism: Towards a Key Elements Approach To Operationalising The Concept, Journal of Sustainable Tourism, 3 (1):45-54

Bramwell, B. and B. Lane. 1993. Sustainable Tourism: An Evolving Global Approach, Journal of Sustainable Tourism, 1 (1):1-5

Bramwell, B. and A. Fearn. 1996. Visitor Attitudes to a Policy Instrument for Visitor Funding of a Conservation Area, Journal of Travel Research, 35 (2):29-33.

Brannen, J. 1992. Mixing Methods: Qualitative and Quantitative Research. Aldershot: Avebury.

Brookes, S.K. 1980. The Growth of The Environment as a Political Issue in Britain, British Journal of Political Science, 6:245-255.

Burningham, K. and M. O'Brien. 1994. Global Environmental Values and Local Contexts of Action, Sociology, 28(4):913-932.

Butler, R.W. 1985. The Evolution of Tourism in the Scottish Highlands, Annals of Tourism Research, 12 (30):371-391.

Butler, R.W. 1990. Alternative Tourism: Pious Hope or Trojan Horse? Journal of Travel Research, 28(4):40-45.

Canadian Heritage, Parks Canada. 1995. The Prairie Sage. Grasslands National Park Visitors Guide.

Carson, R. 1962. Silent Spring. New York: Fawcett Crest. Reprinted. Harmondsworth U.K: Penguin, 1970.

Cawley, M. 1994. Entry Charges - A Barrier to Open Country Recreation? Town and Country Planning, April : 126-128.

Central Statistical Office (CSO). 1991. Census 1991: National Report for Great Britain - Key Statistics. HMSO:London

Central Statistical Office (CSO). 1997a. Regional Trends. HMSO:London.

Central Statistical Office (CSO). 1997b. Social Trends. HMSO:London.

Clawson, C.J. and D.E. Vinson. 1978. Human Values: An Historical and Interdisciplinary Analysis. *in* Advances in Consumer Research. H.K. Hunt (ed.), Ann Arbor, MI: Association for Consumer Research. Vol. 5: 396-402.

Coccossis, H. 1996. Tourism and Sustainability: Perspectives and Implications *in* Priestley, G.K., J.A. Edwards, and H. Coccossis (eds.), Sustainable Tourism? European Experiences. CAB International, Wallingford, Oxford:1-21.

Coccossis, H. and P. Nijkamp. 1995. Sustainable Tourist Development. Avebury, London:190.

Commonwealth Department of Tourism. 1994. National Ecotourism Strategy. Canberra: Commonwealth of Australia.

Cooper, C.P. and I. Odzil. 1992. From Mass to Responsible Tourism: The Turkish Experience, Tourism Management, 13(4): 377-386

Cooper, C.P. and R. Tower. 1992. Inside the Consumer mind: Consumer Attitudes to the Arts, Journal of Market Research Society, 34 (4): 372-378.

Craik, J. 1995. Are There Cultural Limits To Tourism? Journal of Sustainable Tourism, 3 (2):87-98.

Crick, M. 1989. Representations of International Tourism in the Social Sciences: Sun, Sex, Sights, Services and Servility, Annual Review of Anthropology, 18:307-344

Crossley, J. and B. Lee. 1994. Ecotourists and Mass Tourists: A Difference in "Benefits Sought" *in* Proceedings of the 25th Anniversary Conference. Travel and Tourism Research Association, Bal Harbor, Florida. June 18-22. Wheat Ridge CO: Travel and Tourism Research Association: 22-29.

Dalen, E. 1989. Research into Values and Consumer Trends in Norway, Tourism Management, 10 (3):183-186.

Dann, G.M.S. 1989. Tourist Motivation: An Appraisal, Annals of Tourism Research, 8(2) :197-219.

Dasman, R.F., J.P. Milton, and P.H. Freeman. 1973. Ecological Principles for Economic Development. London: John Wiley Press

Department of the Environment, Transport, Regions (DETR). 1998a. New Deal for Transport - Better for Everyone, London:DETR.

Department of the Environment, Transport, Regions (DETR). 1998b. Modern Local Government - In Touch With the People: Enhancing Public Participation in Local Government, Research Summary Paper. London: DETR.

Dickinson, G. 1996. Environmental Degradation in the Countryside: Loch Lomond, Scotland *in* Priestley, G.K., J.A. Edwards, and H. Coccossis (eds.), Sustainable Tourism? European Experiences. CAB International, Wallingford, Oxford: 22-34.

Dowling, R.K. 1992. Tourism and Environmental Integration: The Journey from Idealism to Realism. Progress, Tourism, Recreation and Hospitality Management, 4:33-46.

Driver, B.L., P.J. Brown, G.H. Stankey, and T.G. Gregoire. 1987. The ROS Planning System: Evolution, Basic Concepts and Research Needed, Leisure Sciences, 9(3): 201-212.

Driver, B.L., P.J. Brown, and G.L. Peterson (eds). 1991. The Benefits of Leisure . State College Venture Publishing: Pennsylvania.

Dube, R. 1993. Adventure Travel Redefined: Product Differentiation and Segmentation of Clients and Markets. Joint Conference Proceedings (1993), Travel and Tourism Research Association, Canada and New England Chapters. Washington:TTRA.

Dunlap. R. and K. Van Liere. 1978. The New Environmental Paradigm. Journal of Environmental Education 9 (4):10 - 14.

Dunlap. R. and K. Van Liere. 1984. Commitment to the Dominant Social Paradigm and Concern for Environmental Quality, Social Science Quarterly, 56 (4):1013 - 1038.

Durie, A.J. 1994. The Development of Scotland as a Tourist Destination *in* Tourism: The State of The Art. Seaton, A.V., C.L. Jenkins., R.C. Wood., P.U.C. Dieke., M.M. Bennett., L.R. MacClennan and R. Smith (eds.). Chichester: John Wiley: 494-499.

Eagles, P.F.J. 1992. The Travel Motivations of Canadian Ecotourists, Journal of Travel Research, 31(2): 3-7.

Eastbourne Borough Council (EBC) / MVA /NOP. 1998. Eastbourne Tourism Study 1998. Unpublished Report.

Eckersley, R. 1994. Environmentalism and Political Theory. Towards an Ecocentric Approach. London:UCL Press.

English Tourist Board. 1991. The Green Light - A Guide to Sustainable Tourism. ETB: London.

Feldman, R.M. 1990. Settlement Identity: Psychological Bonds With Home Places in a Mobile Society, Environment and Behaviour, 22: 183-229.

Fennell, D. and B. Smale. 1992. Ecotourism and Natural Resource Protection, Tourism Recreation Research, 17 (1): 21-32.

Fodness, D. 1990. Consumer Perceptions of Tourist Attractions, Journal of Travel Research, 28(4) :3-9.

Forsyth. T. 1995. Business Attitudes to Sustainable Tourism: Self Regulation in the UK Outgoing Tourism Industry, Journal of Sustainable Tourism, 3 (4):210-232

Geller, J. and P. Lasley. 1985. The New Environmental Paradigm Scale: A Re-examination, Journal of Environmental Education, 17 (1):9-12.

Gnoth, J. 1997. Tourism Motivation and Expectation Formation, Annals of Tourism Research, 24(2):283-304

Gold, J.R. and M.M. Gold. 1995. Imagining Scotland. Aldershot: Scolar Press.

Graham, E. 1995. Postmodernism and the Possibility of a New Human Geography, Scottish Geographical Magazine, 111: 175-178.

Grifone, E., R.C. Scace and R. Usher. 1991. Ecotourism in Canada. Discussion Paper for National Workshop on Ecotourism in Canada, September. Calgary: Beak Associates Consulting.

Gutman, J. 1982. A Means End Chain Model Based on Consumer Categorisation Processes, Journal of Marketing, Spring: 60-72.

Haberman, S.J. 1978. Analysis of Qualitative Data. New York: Academic Press.

Hall, C.M. 1991. Introduction to Tourism in Australia: Impacts, Planning and Development. Melbourne: Longman Cheshire.

Haralambopoulos, N. and A. Pizam. 1996. Perceived Impacts of Tourism: The Case of Samos, Annals of Tourism Research, 23 (3):503-526

Hare, J.F., R.E. Anderson, R.E Tatham, and W.C. Black. 1995. Multivariate Data Analysis With Readings. Englewood Cliffs. New Jersey: Prentice Hall

Harrison, D. 1996 Sustainability and Tourism: Reflections from a Muddy Pool *in* Briguglio, L., B. Archer, J. Jafari, and G. Wall (eds.), Sustainable Tourism in Islands and Small States: Issues and Policies. Volume 1, Cassell, London:69-89.

Helland, J. 1997. Locality and Pleasure in Landscape: A Study of Three Nineteenth Century Watercolourists, Rural History, 8:1149-164.

Henry, I.P. and G.A. Jackson. 1996. Sustainability of Management Processes and Tourism Products and Contexts, Journal of Sustainable Tourism, 4 (1):17-28.

Hjalager, A.M. 1996. Innovation and Ecotourism, Journal of Sustainable Tourism, 4 (4):201-218.

Hobson, J.S. and B. Mak. 1995. Home Visit and Community- Based Tourism: Hong Kong's Family Insight Tour, Journal of Sustainable Tourism, 3 (4):179-190.

Homer, P.M. and L.R. Kahle. 1988. A Structural Equation Test of the Value- Attitude - Behaviour Hierarchy, Journal of Personality and Social Psychology, 54:638-646.

Howe, C.Z. 1991. Considerations When Using Phenomenology in Leisure Enquiry: Beliefs, Methods and Analysis in Naturalistic Research, Leisure Studies, 10: 49-62.

Hughes, G. 1995. The Cultural Construction of Sustainable Tourism, Tourism Management, 16(1):49-59.

Hughes, G. 1996. Tourism and the Environment, Scottish Geographical Magazine, 112:107-113.

Hunter, C.J. 1995a. Key Concepts For Tourism and The Environment. *in* Hunter, C and Green, H. (eds.), Tourism and the Environment: A Sustainable Relationship?, London: Routledge:52-92.

Hunter, C.J. 1995b. On the Need to Re-conceptualise Sustainable Tourism Development, Journal of Sustainable Tourism, 3 (3):155-165

Hutson, J. and D. Keddie. 1997. Tourism and Alternative Employment Among Farm Families in Less Favoured Agricultural Regions of Wales. *in* Sustainable Development on the North Atlantic Margin. Byron, R. and P. Breathnach (eds.), Aldershot: Ashgate: 267 - 281

Hvenegaard, G.T., J.R. Butler, and D.K. Kristofiak. 1989. Economic Values of Birdwatching at Point Pelee National Park, Canada, Wildlife Society Bulletin, 17: 526-531.

International Union for the Conservation of Nature(IUCN)/UNEP/WWF. 1980. World Conservation Strategy. Gland, Switzerland :IUCN/UNEP/WWF.

Jackson, L.E. 1986. Outdoor Recreation Participation and Attitudes to the Environment, Leisure Studies, 5:1-23.

Jackson, L.E. 1987. Outdoor Recreation Participation and Views on Resource Development and Preservation, Leisure Studies, 9:235-250.

Jackson, L.E. and A.D.B. Dhanani. 1984. Resources and Resource Use Conflict in Alberta. *in* Environment and Economy: Essays on the Human Geography of Alberta, Barr. B.M. and P. Smith (eds.). Edmonton: University of Alberta Press: 79-94.

Jackson, M.S., G. White, and C. Schmierer. 1996. Tourism Experiences Within An Attributional Framework, Annals of Tourism Research, 23 (4): 798-810.

Jacques, D. 1995. The Rise of Cultural Landscapes. International Journal of Heritage Studies, 1: 91-101.

Jansen-Verbeke, M. and J. Van Rekom. 1996. Scanning Museum Visitors: Urban Tourism Marketing, Annals of Tourism Research, 23 (2): 364-375.

Johnston, B.R. (ed.), 1990. Breaking Out of The Tourist Trap, Cultural Survival Quarterly, 14, (1): 2-5.

Jurowski, C., M. Uysal, D.R. Williams, and F.P. Noe. 1995. An Examination of Preferences and Evaluations of Visitors Based on Environmental Attitudes: Biscayne Bay National Park, Journal of Sustainable Tourism, 3 (2):73-86.

Kahle, L.R. 1983. Social Values and Social Change: Adaptation to Life in America. New York: Praeger.

Kahle, L.R., S. Beatty, and P. Homer. 1986. Alternative Measurement Approaches to Consumer Values: The List of Values (LOV) and Values and Lifestyle (VALS), Journal of Consumer Research, 13:405-409.

Kaltenborn, B.P. 1997. Nature of Place Attachment: A study Among Recreation Homeowners in Southern Norway. Leisure Sciences, 19: 175-189.

Kamakura,W.A. and T.P. Novak. 1992. Value System Segmentation: Exploring the Meaning of LOV. Journal of Consumer Research, 19:119-132.

Klenosky, D.B., C.E. Gengler, and M.S. Mulvaney. 1993. Understanding The Factors Influencing Ski Destination Choice: A Means End Analytic Approach. Journal Of Leisure Research. 25, (4): 362-379.

Knoke, D. and P.J. Burke. 1980. Log-Linear Models. London: Sage Publications.

Kretchman, J.A. and P. Eagles. 1990. An Analysis of the Motives of Ecotourists in Comparison to the General Canadian Population, Society and Leisure,13 (2): 499-508.

Light, D. 1991. Heritage Places in Wales and Their Interpretation : A Study in Applied Recreational Geography. PhD Thesis. Department of Geography, University College of Swansea, Swansea.

Lukashina, N.S., M. Amirkhanov, V. Anisimov, and A. Trunev. 1996. Tourism and Environmental Degradation in Sochi, Russia, Annals of Tourism Research, 23(3):654-665.

Madrigal, R. and L. Kahle. 1994. Predicting Vacation Activity Preferences on the Basis of Value System Segmentation, Journal of Travel Research, 32 (3): 22-28.

Manfredo, M.J., B.L. Driver, and M.A. Tarrant. 1996. Measuring Leisure Motivation: A Meta-Analysis of the Recreation Experience Preference Scales, Journal of Leisure Research, 28 (3): 188-213.

Manning, R.E. 1986. Studies in Outdoor Recreation. A Review and Synthesis of the Social Science Literature in Outdoor Recreation. Oregon State University Press: Corvalis, Oregon.

Mannion, A.M. and S.R. Bowlby. 1994. Environmental Issues in the 1990's. Wiley: Chichester.

Market Opinion Research International (MORI). 1996. Business and the Environment: Attitudes and Behaviour of the General Public. London:MORI.

Maslow, A.H. 1954. Motivation and Personality. New York: Harper.

McBoyle, G. 1996. Green Tourism and Scottish Distilleries, Tourism Management, 17(4):255-263.

McCrone, D., A. Morris, and R. Kiely. 1995. Scotland - the Brand. Edinburgh: Edinburgh University Press.

McDowell, E. 1996. The Scottish Environmental Movement: The Impact of Trends and Developments Which Shaped the Movements History. Caledonian Papers in the Social Sciences: Glasgow Caledonian University Press.

McKercher, B. 1993a. Some Fundamental Truths About Tourism: Understanding Tourism's Social and Environmental Impacts, Journal of Sustainable Tourism, 1(1):6-16.

McKercher, B. 1993b. The Unrecognised Threat to Tourism: Can Tourism Survive Sustainability? Tourism Management, 14 (2):131-136.

Meadows, D.H., D.L. Meadows, J. Randers, and W.W. Behrens III. 1972. The Limits To Growth: A Report To the Club of Rome's Project on the Predicament of Mankind. New York: Potomac Associates.

Meldon, J. 1997. A Sustainable Strategy for Scenic Landscapes. *in* Sustainable Development on the North Atlantic Margin, Byron, R. and P. Breathnach (eds), Aldershot: Ashgate :260 - 266.

Michie, D.A. 1986. Family Travel Behaviour and its Implications For Tourism Management: An International Study, Tourism Management, 13 (March): 8-20.

Miller, M. and B.C. Kaae. 1993. Coastal and Marine Ecotourism: A Formula for Sustainable Development? Trends, 30:35-41.

Mo, C., M.E. Havitz, and D.R. Howard. 1994. Segmenting Travel Markets With the International Tourism Role Scale, Journal of Travel Research, 33(1): 24-31.

Muller, T.E. 1991. Using Personal Values to Define Segments in an International Tourism Market, International Marketing Review, 8 (1):57-70

Munt, I. 1992. A Great Escape? Town and Country Planning. Jul/Aug : 212-214

Nababan, A. and A. Aliadi. 1993. Nature Tourism Profile: Indonesia *in* Nature, Tourism and Asia: Opportunities and Constraints for Conservation and Economic Development. Nenon, J. and P.B. Durst (eds). Washington D.C:USDA Forest Service.

National Consumer Council. 1996. Green Claims: A Consumer Investigation into Marketing Claims About the Environment. London: National Consumer Council.

Noe, F.P. and B. Snow. 1990. The New Environmental Paradigm and Further Scale Analysis, Journal of Environmental Education, 21 (4): 20-25.

Norusis, M.J. 1994. SPSS For Windows: Advanced Statistics Release 6.0. SPSS Inc.: Illinois.

Obua, J. and D.M. Harding. 1996. Visitor Characteristics and Attitudes Towards Kibale National Park, Uganda, Tourism Management, 17(7):495-505.

Oppenheim, A.N. 1992. Questionnaire Design, Interviewing and Attitude Measurement. London and New York: Printer Publishing.

Orams, M.B. 1995. Towards a More Desirable Form of Ecotourism, Tourism Management, 16 (1):3-8.

Otto, J.E. and J.R. Ritchie. 1996. The Service Experience in Tourism, Tourism Management, 17(3):165-174.

Pearce, D.G. 1989. Tourist Development. London: Longman.

Pearce, D.G., A. Markandya, and E. Barbier. 1989. Blueprint for a Green Economy. London:Earthscan.

Peelen, E. 1993. Applications of The Laddering Technique in Marketing, European Advances in Consumer Research, 1:474-478.

Perkins, W.S. and T.J. Reynolds. 1988. The Explanatory Power of Values in Preference Judgements: Validation of the Means-End Perspective, Advances in Consumer Research, 15:122-126

Pitts, R.E. and A.G. Woodside. 1986. Personal Values and Travel Decisions, Journal of Travel Research, 25 (Summer): 20-25.

Plant, C. and J. Plant (eds.). 1991. Green Business: Hope or Hoax? Gabriola Island, British Columbia: New Island Publishers.

Poirier, R.A. 1995. Environmental Policy and Tourism in Tunisia, Journal of Travel Research, 15 (3):57-60.

Prentice, R.C. 1992. The Manx National Glens as Treasured Landscape, Scottish Geographical Magazine, 108 (2):119-127.

Prentice, R.C. 1993a. Community-Driven Tourism Planning and Residents Preferences, Tourism Management, 14(3):218-227.

Prentice, R.C. 1993b. Change and Policy in Wales. Llandysul: Gomer.

Prentice, R.C. 1993c. Tourism and Heritage Attractions. London: Routledge.

Prentice, R.C. 1997a. Cultural and Landscape Tourism: Facilitating Meaning *in* Tourism Development and Growth - The Challenge of Sustainability, Wahab, S. and J.P. Pigram (eds.). London: Routledge: 199 - 280.

Prentice, R.C. 1997b. Environmental Interpretation as a Disciplinary Interface in Sustainable Development *in* Sustainable Development on the North Atlantic Margin, Byron, R. and P. Breathnach (eds.). Aldershot: Ashgate: 217 - 238.

Prentice, R.C. and S. Guerin. 1998. The Romantic Walker? A Case Study of Users Of Iconic Scottish Landscape, Scottish Geographical Magazine, 114 (3):180-191.

Prentice, R.C., S.F. Witt, and C. Hamer. 1998. Tourism as Experience: The Case of Heritage Parks, Annals of Tourism Research, 25, (1): 1-24.

Prentice, R.C., S.F. Witt, and E.G. Wyndenbach. 1994. The Endearment Behaviour of Tourists Through Their Interaction With The Host Community, Tourism Management, 15 (2): 117-125.

Priestley, G.K., J.A. Edwards, and H. Coccossis (eds). 1996. Sustainable Tourism? European Experiences. CAB International, Wallingford, Oxford.

Pritchard, A. and N. Morgan. 1996. Selling the Celtic Arc to the USA, Journal of Vacation Marketing, 2: 346 - 365.

Punj, G. and D.W. Stewart. 1983. Cluster Analysis in Marketing Research; Review and Suggestions for Application, Journal of Marketing Research, 20:134-148.

Reynolds, T.J. and J. Gutman. 1988. Laddering Theory, Method, Analysis and Interpretation, Journal of Advertising Research, 28:11-31.

Reynolds, T.J. and J. Jolly. 1980. Measuring Personal Values: An Evaluation of Alternative Methods, Journal of Marketing Research, 17: 531 - 536.

Rokeach, M. 1973. The Nature of Human Values. New York: Free Press.

Rokeach, M. and S. Ball-Rokeach. 1989. Stability and Change in American Value Priorities, 1968-1981, American Psychologist, 44:775-784.

Rudig, W. 1993. Green Blues: The Rise and Decline of the Green Party. Scottish Political Papers. Strathclyde: Strathclyde University Press.

Ryel, R. and T. Grasse. 1991. Marketing Ecotourism: Attracting the Elusive Ecotourist *in* Nature Tourism: Managing for the Environment. T. Whelan (ed.), Washington D.C: Island Press:164-186.

Saleh, F. and J. Karwacki. 1996. Revisiting the Ecotourist: The Case of Grasslands National Park, Journal of Sustainable Tourism, 4(2):61-80.

Sandbach, F. 1980. Environment, Ideology and Policy. Oxford: Blackwell.

Saremba, J. and A. Gill. 1991. Value Conflicts in Mountain Park Settings, Annals of Tourism Research, 18 (3): 455-472.

Schumacher, E. 1973. Small is Beautiful. London:Blond and Briggs.

Schwartz, S.H. and W. Bilsky. 1987. Toward a Universal Psychological Structure of Human Values, Journal of Personality and Social Psychology, 53:550-562.

Scottish Tourist Board. 1996. Scottish Tourism: Domestic and Overseas Visitors. Edinburgh: Scottish Tourist Board.

Scottish Tourist Board. 1998a. Kingdom of Fife and St. Andrews. Edinburgh: Scottish Tourist Board.

Scottish Tourist Board. 1998b. Perthshire: The Essential Guide. Edinburgh: Scottish Tourist Board.

Scottish Tourist Board. 1998c. Scottish Tourism: Strategic Plan Progress Report. Edinburgh: Scottish Tourist Board.

Scottish Tourism Co-ordinating Group. 1993. Tourism and the Scottish Environment: A Sustainable Partnership. Edinburgh: Scottish Tourist Board.

Scottish Tourism Co-ordinating Group. 1996. Tourism and the Scottish Environment: Strategic Plan. Edinburgh: Scottish Tourist Board.

S.E.R.E.N. 1986. Visitor Survey Report. Prepared by S.E.R.E.N (Social-Economic Research and Environment) Department of Geography, University College of Swansea, Swansea, Easter 1985.

Sheldon, P.J. and T. Var. 1984. Residents Attitudes to Tourism in North Wales, Tourism Management, 5 (1): 40-47.

Sheth, N.R. 1995. Values in Search of an Identity, Journal of Human Values, 1 (1):1-10.

Shih, D. 1986. VALS as a Tool of Tourism Market Research: The Pennsylvania Experience, Journal of Travel Research, 24(4) 2:11.

Shrum, L.J., J.A. McCarty, and T. Loeffler. 1990. Individual Differences in Value Stability: Are We Really Tapping True Values? Advances in Consumer Research,17: 609-615.

Silverberg, K.E., S. Backman, and K. Backman. 1996. A Preliminary Investigation into the Psychographics of Nature Based Travellers to the South-eastern United States, Journal of Travel Research, 35(2): 19-28.

Silverman, D. 1993. Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction. London: Sage.

Simmons, L.G. 1993. Interpreting Nature. London: Routledge.

Smout, T.C. 1983. Tours in the Scottish Highlands from the Eighteenth to the Twentieth Centuries, Northern Scotland, 5:99-121.

Soussan, J.G. 1994. Sustainable Development in Mannion, A.M. and S.R. Bowlby (eds.). Environmental Issues in the 1990's. Chichester: Wiley: 21:36.

Spates, J.C. 1983 The Sociology of Values, Annual Review of Sociology, 9: 27-49.

Stabler, M.J. and B. Goodall. 1996. Environmental Auditing In Planning for Sustainable Island Tourism. *in* Briguglio, L., B. Archer, J. Jafari, and G. Wall. Sustainable Tourism in Islands and Small States: Issues and Policies. Volume 1, Cassell, London:170-196.

Thomas, B., S.Sheehan, P. Yale, R. Everist and T. Wheeler. 1997. Lonely Planet Travel Survival Kit: Britain. Lonely Planet Publications, London:798.

Thornton, P.R., G. Shaw, and A.M. Williams. 1997. Tourist Group Holiday Decision-Making and Behaviour: The Influence of Children, Tourism Management, 18(5):287-297.

Todd, S.E. and P.W. Williams. 1996. From White to Green: A Proposed Environmental Management System Framework for Ski Areas, Journal of Sustainable Tourism, 4(3):147 - 174.

Toogood, M. 1995. Representing Ecology and Highland Tradition, Area, 27:102:107

Tooman, L.A. 1997. Tourism and Development, Journal of Travel Research, 15 (3):33-40.

Turner, R.K. 1991. Environment, Economics and Essex *in* D. Pearce (ed.), Blueprint 2: Greening the World Economy. London:Earthscan.

Urry, J. 1992. The Tourist Gaze and The Environment, Theory, Culture and Society, 9 (3):1-26.

Uysal, M., C.M. Jurowski, F.P. Noe, and C. McDonald. 1994. Environmental Attitude by Trip and Visitor Characteristics: US Virgin Islands National Park, Tourism Management, 15(4):284-294.

Valentine, P.S. 1993. Ecotourism and Nature Conservation: A Definition With Some Recent Developments in Micronesia, Tourism Management, 14(2):107-115.

Vallerand, R.J. 1997. Towards a Hierarchical Model of Intrinsic and Extrinsic Motivation, Advances in Experimental Social Psychology, 29: 271-360.

Van Liere, K.D. and R.E. Dunlap. 1980. The Social Bases of Environmental Concern: A Review of Hypotheses, Explanations and Empirical Evidence, Public Opinion Quarterly, 44: 181-197.

Van Raaij, W.F. 1993. Postmodern Consumption, Journal of Economic Psychology, 14:541-63

Veal, A.J. 1992. Research Methods for Leisure and Tourism: A Practical Guide. London :Pitman Publishing.

Wahab, S. and J.P. Pigram (eds.). Tourism Development and Growth - The Challenge of Sustainability, London: Routledge.

Waldstein, E.A. 1991. Environmental Policy and Politics *in* Political Issues in America, Davies, P.J. and E.A. Waldstein (eds.), Manchester and New York: Manchester University Press.

Wales Tourist Board. 1994. Welsh Tourism: Strategic Plan. Cardiff: Wales Tourist Board.

Walle, A.H. 1997. Quantitative Versus Qualitative Research. Annals of Tourism Research, 24 (3): 524-536.

Wang, C.Y. and P.S. Miko. 1997. Environmental Impacts of Tourism on US National Parks, Journal of Travel Research, 35 (4): 31-36.

Weir, T. 1989. 25 Years of Scotland, The Scots Magazine, 14:356-359.

Wheeller, B. 1991. Tourism Troubled Times, Tourism Management, 12(2): 91-96.

Wheeller, B. 1993. Sustaining the Ego, Journal of Sustainable Tourism, 1 (2):121-129.

Wheeller, B. 1994. Egotourism, Sustainable Tourism and the Environment - A Symbiotic, Symbolic or Shambolic Relationship? *in* Tourism: The State of The Art. Seaton, A.V., C.L. Jenkins, R.C. Wood, P.U.C. Dieke, M.M. Bennett, L.R. MacClennan, and R. Smith (eds.). Chichester: John Wiley: 647-654

Willancy, S. and P.F.J. Eagles. 1990. An Analysis of the Federation of Ontario Naturalists' Canadian Tours Programme. Waterloo, Canada. Department of Recreation and Leisure Studies, University of Waterloo.

Williams, D.R. 1988. Measuring Perceived Similarity Among Outdoor Recreation Activities: A Comparison of Visual and Verbal Stimulus Presentations, Leisure Sciences, 10: 153-166.

Williams, D.R., M.E. Patterson, and J.W. Roggenbuck. 1992. Beyond the Commodity Metaphor: Examining Emotional and Symbolic Attachment to Place, Leisure Sciences, 14: 29-46.

Williams, S.M. and R. McCrorie. 1990. The Analysis of Ecological Attitudes in Town and Country, Journal of Environmental Management, 31:157-162.

Wight, P. 1993. Ecotourism: Ethics or Ecosell? Journal of Travel Research, 31(3):3-9.

Wight, P. 1996a. North American Ecotourists: Market Profile and Trip Characteristics, Journal of Travel Research, 34(4):2-10.

Wight, P. 1996b. North American Ecotourism Markets: Motivations, Preferences, and Destinations, Journal of Travel Research, 35(1):3-10.

Willis, K.G. 1994. Paying for Heritage: What Price for Durham Cathedral? Journal of Environmental Planning and Management, 37 (3): 46-62.

Witter, B.S. 1985. Attitudes About a Resort Area: A Comparison of Tourists and Local Retailers, Journal of Travel Research, 24 (1) 14-19.

World Commission on Environment and Development. 1987. The Brundtland Report. Oxford: Oxford University Press.

World Tourism Organisation. 1989. Yearbook of Tourism Statistics. Vol. 1 Madrid.

Yuan, M.S. and N. Christensen. 1994. Wildland Influenced Economic Impacts Significance of Visitors Attracted to the Montana Wildlands, Western Wildlands, 18 (Fall):20-24.

APPENDIX 1

THE IN-DEPTH INTERVIEW SCHEDULE CONDUCTED AT ST. ANDREWS AND PITLOCHRY DURING THE 1995 SURVEYS

QUEEN MARGARET COLLEGE

Department of Hospitality and Tourism Management
Clerwood Terrace
Edinburgh EH12 8TS
Telephone: 0131 317 3595

July - September 1995

SURVEY OF TOURISTS' VIEWS ON SCOTTISH TOWNS

PITLOCHRY / ST. ANDREWS / STIRLING

Interviews carried out by: Deborah Crick, Postgraduate Researcher, Department of Hospitality and Tourism Management.

The interviewer must ask the following questions before preceding with the interview -

1. Is the respondent currently on holiday (staying at least one night away from home) ? **YES**

2. Is the respondent an UK citizen residing outwith Scotland? **YES**

- If the response to either of the above questions is **NO**, thank the respondent and close the interview.
- If the response is **YES** to both of the above questions, explain that the interviewer seeks their views and opinions of the town and proceed with the interview

---

QUESTION 1.

Would you recommend a visit to this town to a friend or relative visiting this area?
YES / NO

Why ? / Why not?

QUESTION 2.

2a. Could you please explain to me why you have chosen to visit this town today?
(....What is most attractive about the area to you?)

2b. Which parts of the town have you visited today?

2c. What did you like about these parts of the town / area / attractions?
(...why?)

2d. What was the most enjoyable part of your visit here today?
(...why?)

QUESTION 3.

3a. How would you describe this town?

3b. What were your expectations of the town before you arrived?

Did your visit live up to expectations? **YES / NO**

In what way?

QUESTION 4.

4a. The tourist board in Scotland is trying to attract more visitors to this area.

Do you think this is a good idea? **YES / NO**

Why? -

What do you think the impact on the area would be if more tourists were attracted?

How might this affect your decision to visit the area?

4b. Do you think that there are adequate facilities in the town for tourists? **YES / NO**

What would you like to see more or less of?

Why?

QUESTION 5. ENVIRONMENTAL ISSUES

5a. Would you consider yourself to be actively concerned about the environment?

YES / NO

If **YES**, in what ways are you active?
(Why are these particular issues important to you personally?)

If **NO**, what is your image of a typical environmentalist?

QUESTION 6.

6a Are you a member of an environmental or heritage group such as The National Trust or Friends of the Earth?

YES / NO

If **YES**, which one?

What do you hope to achieve by being a member?

If **NO**, What is your image of a "typical" member of an environmental or heritage group?

QUESTION 7.

7a. Why did you decide to take a holiday in the United Kingdom?

Why Scotland

QUESTION 8.

8a. Where did you take your last holiday?

What type of holiday was it?

8b. What issues are important to you generally when you are choosing somewhere to go on holiday?
(Why are they important to you...?)

8c. What issues were important to you in your choice of this holiday destination?
(Why are they important to you...?)

8d. What type of accommodation are you using during your present visit?

Why did you choose to use this type of accommodation?

THANK YOU VERY MUCH FOR YOUR HELP.

APPENDIX 2

COPIES OF THE QUESTIONNAIRES CONDUCTED AT ST. ANDREWS AND PITLOCHRY DURING THE 1996 SURVEYS

QUEEN MARGARET COLLEGE

Department of Hospitality and Tourism Management
Clerwood Terrace
Edinburgh EH12 8TS
Telephone: 0131 317 3595

June - September 1996

SURVEY OF DOMESTIC TOURISTS TO ST. ANDREWS

Interviewer: Deborah Crick

I am a research student interested in why people come to Scotland on holiday, and in particular why they visit St. Andrews. I would very much appreciate it if you could help me by answering the following questions. Firstly:

1. Are you on holiday (staying at least one night away from home)? YES NO

2. Do you live in England or Wales? YES NO

ONLY CONTINUE IF BOTH QUESTIONS WERE ANSWERED 'YES'.

Section A

A.1. Thinking now about holidays you have taken in the last 5 years can you think of things which have been the same in your choice of:

a) Type of holiday.

b) Holiday destination

A.2. Please indicate how much you agree that the following statements reflect the reasons for your visit here today.

a. I am very fond of St. Andrews, it means a lot to me

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

b. I love to visit Scotland

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

c. St. Andrews is a typical Scottish town.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

d. St. Andrews is unique, I wouldn't substitute any other place for doing the type of things I do here.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

e. I find that a lot of my holidays are organised around areas of natural beauty.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

f. To me, this area represents a typical Scottish landscape

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

A.3a. Please rate the importance of the following in your decision to come on holiday to Scotland.

	Unimportant	Somewhat Important	Very Important
A safe place to holiday	1	2	3
Learn something about my own country	1	2	3
Freedom in wide open spaces	1	2	3
Spend quality time with friends and family	1	2	3
Relax and unwind. Get back in touch with myself.	1	2	3
No hassle	1	2	3
Fun	1	2	3
Learn something interesting	1	2	3
Excitement	1	2	3
To be closer to nature	1	2	3
Somewhere well known so I can tell my friends	1	2	3
To indulge myself	1	2	3

A.3b. Of the above reasons, which ONE was the MOST IMPORTANT?

A.4a Please indicate the things that were most important when choosing to come here to St. Andrews:

	Unimportant	Somewhat Important	Very Important
I wanted to visit the coast	1	2	3
A good place for golf	1	2	3
The beach is clean	1	2	3
The ease of access from home	1	2	3
The quietness	1	2	3
The sandy beach	1	2	3
Different style of local buildings	1	2	3
The area is good for children	1	2	3
I liked it when I have been before	1	2	3
The attractive, natural setting	1	2	3
The open spaces	1	2	3
The area is good for walks	1	2	3

Place with unique Scottish historical monuments	1	2	3
A good base for touring the area	1	2	3

A.4b. Of the above reasons, which ONE was the MOST IMPORTANT?

A.6a. Which of the following things have you done on this holiday?

	Done	Not Done		Done	Not Done
Golfing	1	2	Visited a museum	1	2
Fishing	1	2	Visited an art gallery	1	2
Walking	1	2	Been to the theatre	1	2
Climbing	1	2	Naturewatching	1	2
Camping	1	2	Visited a historical monument	1	2
Mountain biking	1	2	Visited a wildlife attraction	1	2
Leisure shopping	1	2	Visited a funfair or theme park	1	2
Toured around sightseeing	1	2			

A.6b. Which others do you intend to do?

Section B

B.1. Please indicate which one of the following you consider to be the least harmful to the environment and the local community.

a.	Not Mentioned	Least Harmful
Large hotel	1	2
Camping	1	2
Caravanning	1	2
Bed and Breakfast	1	2

Why?

b.	Not Mentioned	Least Harmful
Golfing	1	2
Fishing	1	2
Climbing	1	2
Mountainbiking	1	2
Leisure shopping	1	2

Why?

B.2. Please indicate on the scale how much you agree or disagree with the following statements:

a. I cannot do anything significant to solve environmental problems.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

b. New leisure and tourist attractions should be encouraged in this area so that people can have fun and enjoyment here.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

c. Tourists to this area should be encouraged to travel by public transport to keep the area free from congestion and fumes

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

d. More car parking facilities should be provided in this area for the convenience of visitors here.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

e. The number of new tourist and leisure developments should be severely restricted if this area is to be kept unspoilt.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

f. The development of golf courses wastes huge amounts of natural resources such as water and agricultural land.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

g. The use of cars in this area should be restricted to keep it unpolluted.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

h. Golf courses allow people to enjoy sport in beautiful surroundings

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

B.3. Which of the following, if any , has affected your enjoyment of your visit to the area?

	Positive Effect	No Effect	Negative Effect		Positive Effect	No Effect	Negative Effect
Litter and rubbish	1	2	3	Noticeable loss of vegetation and wildlife	1	2	3
Overcrowding	1	2	3	Ugly building developments	1	2	3
Noise	1	2	3	Traffic congestion	1	2	3
Erosion of beach walks and cliffs	1	2	3	Fumes	1	2	3

B.4. Which if any, of the following things have you done in the last two years?

	Done	Not Done		
Campaigned about an environmental issue	1	2		
Selected one product over another because of its environmentally friendly packaging, formulation or advertising	1	2		
Recycled glass, tins or paper	1	2		
Been a member of an environmental group	1	2		
Used lead free petrol (if vehicle owner)	1	2	No Vehicle	3
Given money for conservation or wildlife charities.	1	2		

B.5. There are plans to deal with the impacts of tourism in this area. Using the scales could you please indicate how you feel about the following statements.

a. Car park charges should be increased substantially to cover costs of cleaning up the beach and parks.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

b. The town centre should be pedestrianised, visitors should use park and ride facilities from surrounding areas.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

c. To restrict the number of visitors , an entrance fee to visit the town should be introduced.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

d. A visitor centre should be provided to inform visitors about conserving the local environment.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

Section C

C.1. Can I now please take some details from you to help me analyse the survey data? The information you give me will be **strictly confidential** and will be used for the purpose of statistical analysis only.

a. Respondent:

MALE	1
FEMALE	2

b. Please indicate your age group:

16-20 yrs	21-30 yrs	31-40 yrs	41-50 yrs	51-60 yrs	61-70 yrs	70+ yrs
1	2	3	4	5	6	7

c. Have you got a current job title? If yes, please be as specific as possible.
If retired or unemployed, please also indicate your previous job title.

_____

What is the occupation of your partner?

_____

d. Do you have any educational qualifications? If so, please tell me your highest qualification.

None	0
GCSE or equivalent	1
Higher education below degree level	2
First degree	3
Professional qualifications	4
Higher degree	5

e. Do you have any children of school age or under with you in your group today?

YES	1
NO	2

If YES, of what age are they?

Pre school	1
Primary	2
Secondary	3

Thank you for helping me!

QUEEN MARGARET COLLEGE

Department of Hospitality and Tourism Management
Clerwood Terrace
Edinburgh EH12 8TS
Telephone: 0131 317 3595

June - September 1996

SURVEY OF DOMESTIC TOURISTS TO PITLOCHRY

Interviewer: Deborah Crick

I am a research student interested in why people come to Scotland on holiday, and in particular why they visit Pitlochry. I would very much appreciate it if you could help me by answering the following questions. Firstly:

1. Are you on holiday (staying at least one night away from home) ? **YES** **NO**

2. Do you live in England or Wales? **YES** **NO**

ONLY CONTINUE IF BOTH QUESTIONS WERE ANSWERED 'YES'.

Section A

A.1. Thinking now about holidays you have taken in the last 5 years can you think of things which have been the same in your choice of:

a) Type of holiday.

b) Holiday destination

A.2. Please indicate how much you agree that the following statements reflect the reasons for your visit here today.

a. I am very fond of Pitlochry, it means a lot to me

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

b. I love to visit Scotland

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

c. Pitlochry is a typical Scottish town.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

d. Pitlochry is unique, I wouldn't substitute any other place for doing the type of things I do here.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

e. I find that a lot of my holidays are organised around areas of natural beauty.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

f. To me, this area represents a typical Scottish landscape

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

A.3a. Please rate the importance of the following in your decision to come on holiday to Scotland.

	Unimportant	Somewhat Important	Very Important
A safe place to holiday	1	2	3
Learn something about my own country	1	2	3
Freedom in wide open spaces	1	2	3
Spend quality time with friends and family	1	2	3
Relax and unwind. Get back in touch with myself.	1	2	3
No hassle	1	2	3
Fun	1	2	3
Learn something interesting	1	2	3
Excitement	1	2	3
To be closer to nature	1	2	3
Somewhere well known so I can tell my friends	1	2	3
To indulge myself	1	2	3

A.3b. Of the above reasons, which ONE was the MOST IMPORTANT?

A.4a Please indicate the things that were most important when choosing to come here to Pitlochry:

	Unimportant	Somewhat Important	Very Important
I wanted to visit the coast	1	2	3
A good place for golf	1	2	3
The beach is clean	1	2	3
The ease of access from home	1	2	3
The quietness	1	2	3
The sandy beach	1	2	3
Different style of local buildings	1	2	3
The area is good for children	1	2	3

I liked it when I have been before	1	2	3
The attractive, natural setting	1	2	3
The open spaces	1	2	3
The area is good for walks	1	2	3
Place with unique Scottish historical monuments	1	2	3
A good base for touring the area	1	2	3

A.4b. Of the above reasons, which ONE was the MOST IMPORTANT?

A.5a. Which of the following things have you done on this holiday?

	Done	Not Done		Done	Not Done
Golfing	1	2	Visited a museum	1	2
Fishing	1	2	Visited an art gallery	1	2
Walking	1	2	Been to the theatre	1	2
Climbing	1	2	Naturewatching	1	2
Camping	1	2	Visited a historical monument	1	2
Mountain biking	1	2	Visited a wildlife attraction	1	2
Leisure shopping	1	2	Visited a funfair or theme park	1	2
Toured around sightseeing	1	2			

A.5b. Which others do you intend to do?

Section B

B.1. Please indicate which one of the following you consider to be the least harmful to the environment and the local community.

a.	Not Mentioned	Least Harmful
Large hotel	1	2
Camping	1	2
Caravanning	1	2
Bed and Breakfast	1	2

Why?

b.	Not Mentioned	Least Harmful
Golfing	1	2
Fishing	1	2
Climbing	1	2
Mountainbiking	1	2
Leisure shopping	1	2

Why?

B.2. Please indicate on the scale how much you agree or disagree with the following statements:

a. I cannot do anything significant to solve environmental problems.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

b. New leisure and tourist attractions should be encouraged in this area so that people can have fun and enjoyment here.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

c. Tourists to this area should be encouraged to travel by public transport to keep the area free from congestion and fumes

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

d. More car parking facilities should be provided in this area for the convenience of visitors here.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

e. The number of new tourist and leisure developments should be severely restricted if this area is to be kept unspoilt.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

f. The development of golf courses wastes huge amounts of natural resources such as water and agricultural land.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

g. The use of cars in this area should be restricted to keep it unpolluted.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

h. Golf courses allow people to enjoy sport in beautiful surroundings

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

B.3. Which of the following, if any , has affected your enjoyment of your visit to the area?

	Positive Effect	No Effect	Negative Effect		Positive Effect	No Effect	Negative Effect
Litter and rubbish	1	2	3	Noticeable loss of vegetation and wildlife	1	2	3
Overcrowding	1	2	3	Ugly building developments	1	2	3
Noise	1	2	3	Traffic congestion	1	2	3
Erosion of beach walks and cliffs	1	2	3	Fumes	1	2	3

B.4. Which if any, of the following things have you done in the last two years?

	Done	Not Done		
Campaigned about an environmental issue	1	2		
Selected one product over another because of its environmentally friendly packaging, formulation or advertising	1	2		
Recycled glass, tins or paper	1	2		
Been a member of an environmental group	1	2		
Used lead free petrol (if vehicle owner)	1	2	**No Vehicle**	3
Given money for conservation or wildlife charities.	1	2		

B.5. There are plans to deal with the impacts of tourism in this area. Using the scales could you please indicate how you feel about the following statements.

a. Car park charges should be increased substantially to cover costs of cleaning up the beach and parks.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

b. The town centre should be pedestrianised, visitors should use park and ride facilities from surrounding areas.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

c. To restrict the number of visitors , an entrance fee to visit the town should be introduced.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

d. A visitor centre should be provided to inform visitors about conserving the local environment.

strongly agree	slightly agree	no strong feelings	slightly disagree	strongly disagree
1	2	3	4	5

Section C

C.1. Can I now please take some details from you to help me analyse the survey data? The information you give me will be **strictly confidential** and will be used for the purpose of statistical analysis only.

a. Respondent:

MALE	1
FEMALE	2

b. Please indicate your age group:

16-20 yrs	21-30 yrs	31-40 yrs	41-50 yrs	51-60 yrs	61-70 yrs	70+ yrs
1	2	3	4	5	6	7

c. Have you got a current job title? If yes, please be as specific as possible.
If retired or unemployed, please also indicate your previous job title.

_____

What is the occupation of your partner?

_____

d. Do you have any educational qualifications? If so, please tell me your highest qualification.

None	0
GCSE or equivalent	1
Higher education below degree level	2
First degree	3
Professional qualifications	4
Higher degree	5

e. Do you have any children of school age or under with you in your group today?

YES	1
NO	2

If YES, of what age are they?

Pre school	1
Primary	2
Secondary	3

Thank you for helping me!

APPENDIX 3

THE LAMBDA "EFFECT" PARAMETERS OF VALUE COMBINATIONS ON ACTIVITIES

Activity factor codes 1="done" 2="not done"	Value factor codes 1="unimportant" 2="somewhat important" 3="very important"	Interaction Term	Lambda Effect Parameter (λ^{N}_{i})
tour="Toured around sightseeing"	lea ="learn about my own country" int="learn something interesting	lea_3 int_3 $tour_1$	2.743
bike= "Mountainbiking"	fre="freedom in open spaces" na="to be closer to nature"	fre_1 na_3 $bike_2$	1.9009
clim="Climbing"	fre="freedom in open spaces" na="to be closer to nature"	fre_3 na_3	1.7994
		fre_1 na_1 $clim_2$	1.9459
		fre_1 na_3 $clim_1$	1.6994
		fre_3 na_3 $clim_1$	2.554
his="Visited a historical monument"	rel="relax and unwind" int="to learn something intersting" has="no hassle" lea="to learn something about my own country"	rel_3 int_1 his_2	12.5233
		rel_3 int_2 his_1	21.3774
		rel_2 int_2 his_2	13.983
		rel_2 int_2 his_1	27.0498
		rel_3 int_2 his_2	15.6446
		has_3 int_1 his_1	38.1185
		has_3 int_1 his_2	8.4878
		has_3 int_2 his_1	14.9749
		has_3 int_2 his_2	20.6187
		has_2 int_2 his_1	14.7878
		has_3 int_3 his_2	5.9475
		has_1 rel_1 int_1 lea_1	17.5347
		has_1 rel_1 int_1 lea_2	22.0765
		has_1 rel_1 int_1 lea_3	14.2277
		has_1 rel_1 int_2 lea_1	7.3591
		has_1 rel_1 int_2 lea_2	37.8189
		has_1 rel_1 int_2 lea_3	35.2785
		has_1 rel_1 int_3 lea_1	38.0003
		has_1 rel_1 int_3 lea_2	42.0805
		has_1 rel_1 int_3 lea_3	21.3929
		has_1 rel_2 int_1 lea_1	11.8727
		has_1 rel_2 int_1 lea_2	6.98808
		has_1 rel_2 int_1 lea_3	13.3035
		has_1 rel_2 int_3 lea_2	8.6068
		has_1 rel_3 int_1 lea_1	14.7185
		has_1 rel_3 int_2 lea_2	11.859
		has_1 rel_3 int_3 lea_1	8.4058
		has_2 rel_1 int_1 lea_2	4.8231
		has_2 rel_1 int_2 lea_1	9.0029
		has_2 rel_1 int_2 lea_2	27.9246
		has_2 rel_1 int_2 lea_3	24.5402
		has_2 rel_1 int_3 lea_1	14.5265
		has_2 rel_1 int_3 lea_2	29.4209
		has_2 rel_1 int_3 lea_3	14.9686
		has_2 rel_2 in_1 lea_1	24.2957
		has_2 rel_2 int_1 lea_2	13.494
		has_2 rel_2 int_3 lea_1	12.1217
		has_2 rel_1 int_1 lea_2	5.781
		has_2 rel_1 int_2 lea_1	8.9622
		has_2 rel_1 int_2 lea_2	16.1071
		has_3 rel_1 int_3 lea_1	12.3894
		has_3 rel_1 int_3 lea_2	18.5372
		has_3 rel_2 int_1 lea_1	32.6342
		has_3 rel_2 int_1 lea_2	10.0119
		has_1 rel_1 lea_1 his_2	11.2108
		has_1 rel_1 lea_2 his_2	24.7018
		has_1 rel_2 lea_1 his_1	7.1871
		has_1 rel_2 lea_2 his_2	14.0556
		has_1 rel_2 lea_3 his_1	20.684
		has_1 rel_3 lea_3 his_1	15.1934
		has_2 rel_1 lea_1 his_2	45.3858
		has_2 rel_1 lea_2 his_2	14.973
		has_2 rel_1 lea_3 his_1	12.5189
		has_3 rel_1 lea_2 his_1	14.1842
		has_3 rel_1 lea_3 his_1	19.708
		has_3 rel_2 lea_1 his_2	37.2207
		has_3 rel_2 lea_3 his_2	12.3215
		has_3 rel_3 lea_1 his_1	14.8444
		has_3 rel_3 lea_2 his_1	26.4359
		has_3 rel_3 lea_3 his_1	6.3983
fish="Fishing"	saf="a safe place to holiday" rel="relax and unwind"	saf_3 rel_3	3.981
walk="Walking"	fre="freedom in open spaces" Int="to learn something interesting" na="to be closer to nature"	na_1 int_2 $walk_2$	3.4243
		na_2 int_3 $walk_2$	8.4162
		na_3 int_3 $walk_2$	3.2407
		fre_3 int_2 $walk_2$	4.4922
shop="Leisure Shopping"	wk="somewhere well known so I can tell my friends" fun="fun"	wk_2 $shop_1$	2.2535
		wk_3 $shop_1$	2.2249
		saf_3 wk_2 fun_3	2.5543
		saf_1 fun_2 $shop_2$	1.8135
art="Visited an art gallery"	ff="spend quality time with friends and family" has="no hassle" int="learn something interesting" lea="to learn something about my own country"	has_1 ff_1 lea_1 int_3	13.9621
		has_1 ff_1 lea_2 int_1	21.7415
		has_1 ff_1 lea_2 int_2	11.2282
		has_1 ff_1 lea_2 int_3	11.6107
		has_1 ff_2 lea_1 int_1	12.3254
		has_1 ff_2 lea_2 int_1	21.955
		has_1 ff_2 lea_2 int_2	11.2887
		has_1 ff_2 lea_2 int_3	10.9127
		has_1 ff_2 lea_3 int_1	3.23
		has_1 ff_3 lea_1 int_1	3.3106
		has_1 ff_3 lea_3 int_3	6.7937
		has_2 ff_1 lea_1 int_1	11.0909
		has_2 ff_1 lea_2 int_1	10.4006
		has_2 ff_2 lea_2 int_1	12.0896

Activity factor codes 1="done" 2="not done"	Value factor codes 1="unimportant" 2="somewhat important" 3="very important"	Interaction Term	Lambda Effect Parameter (λ^{M}_{i})
		$has_2\ ff_2\ lea_3\ int_1$	10.336
		$has_3\ ff_1\ lea_1\ int_1$	12.8046
		$has_3\ ff_2\ lea_1\ int_1$	11.7928
		$has_3\ ff_2\ lea_2\ int_1$	11.1952
		$has_3\ ff_3\ lea_1\ int_1$	3.1765
camp="Camping"	fre="freedom in open spaces" na="to be closer to nature" lea="learn something about my own country" ff="spend quality time with friends and family" int="learn something interesting"	$fre_3\ na_3\ camp_2$	9.8561
		$lea_1\ ff_1\ fre_1$	7.9251
		$lea_1\ ff_1\ fre_2$	5.3544
		$lea_2\ ff_1\ fre_1$	5.8725
		$lea_3\ ff_3\ fre_3$	5.8118
		$lea_1\ ff_1\ int_3$	8.0388
		$lea_2\ ff_1\ int_1$	6.9824
		$lea_3\ ff_1\ int_3$	13.2498
		$lea_3\ ff_2\ int_3$	7.8028
		$lea_3\ ff_3\ int_3$	6.7154
nat="Naturewatching"	na="to be closer to nature" int="learn something interesting" wk="somewhere well known so I can tell my friends" fre="freedom in open spaces"	$na_3\ int_3\ nat_2$	14.5012
		$wk_1\ int_1\ nat_2$	10.1176
		$wk_2\ int_1\ nat_2$	9.9219
		$fre_3\ na_3\ wk_1\ nat_1$	14.3805
		$fre_3\ na_3\ wk_1\ nat_2$	4.723
		$fre_3\ na_3\ wk_2\ nat_1$	4.4137
		$fre_3\ na_3\ wk_2\ nat_2$	13.1369
		$fre_3\ na_3\ wk_3\ nat_1$	14.4768
		$fre_3\ na_3\ wk_3\ nat_2$	11.4023
mus="Visited a museum"	has="no hassle" int="learn something interesting" saf="a safe place to holiday" fre="freedom in open spaces"	$has_3\ int_3\ mus_2$	33.5484
		$saf_1\ has_1\ fre_1\ int_2$	8.0848
		$saf_1\ has_1\ fre_1\ int_3$	27.2883
		$saf_1\ has_1\ fre_2\ int_3$	16.5351
		$saf_1\ has_1\ fre_3\ int_3$	15.8413
		$saf_2\ has_1\ fre_1\ int_3$	9.8028
		$saf_2\ has_1\ fre_3\ int_3$	9.1834
		$saf_2\ has_1\ fre_2\ int_3$	27.9764
		$saf_2\ has_1\ fre_3\ int_3$	8.7718
		$saf_3\ has_1\ fre_1\ int_3$	16.0983
		$saf_3\ has_1\ fre_2\ int_3$	8.0848
		$saf_3\ has_1\ fre_2\ int_3$	27.2833
		$saf_3\ has_3\ fre_3\ int_3$	5.2718
		$saf_1\ has_1 fre_1 mus_2$	26.1601
		$saf_2\ has_1 fre_2 mus_2$	17.2449
		$saf_2\ has_3 fre_1 mus_1$	11.4415
		$saf_2\ has_3 fre_3 mus_2$	17.301
		$saf_3\ has_3 fre_1 mus_2$	28.3924
		$saf_3\ has_3 fre_3 mus_2$	21.2984
		$saf_1\ fre_1 int_1 mus_1$	33.7384
		$saf_1\ fre_1 int_2 mus_1$	18.0754
		$saf_1\ fre_1 int_3 mus_2$	51.8138
		$saf_1\ fre_2 int_1 mus_2$	11.2684
		$saf_1\ fre_2 int_3 mus_1$	10.0005
		$saf_1\ fre_3\ int_1 mus_2$	22.47
		$saf_1\ fre_3\ int_2 mus_2$	19.3433
		$saf_1\ fre_3\ int_3 mus_1$	41.8133
		$saf_2\ fre_1\ int_1 mus_1$	7.7479
		$saf_2\ fre_1\ int_3 mus_2$	8.7479
		$saf_2\ fre_3\ int_1 mus_2$	8.5908
		$saf_2\ fre_3\ int_3 mus_1$	7.984
		$saf_3\ fre_1\ int_1 mus_2$	41.4863
		$saf_3\ fre_1\ int_2 mus_2$	19.0748
		$saf_3\ fre_1\ int_3 mus_1$	18.7478
		$saf_3\ fre_2\ int_3 mus_2$	10.7638
		$saf_3\ fre_3\ int_1 mus_1$	13.1695